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1992 KODIAK MANAGEMENT AREA COMMERCIAL SALMON FISHERY MANAGEMENT REPORT

TO THE
ALASKA STATE BOARD OF FISHERIES

By

David Prokopowich
and
Kevin Brennan

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Alaska Department of Fish and Game
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ABSTRACT

This report contains a description of the Kodiak Management Area commercial salmon fishery which includes historical background, stock status, and a summary of the 1992 fishery. In addition, specific summaries of the North Shelikof Sockeye salmon management plan, the Cape Igvak management plan, and the Alitak Bay District fishery are located in the appendix section of this report. Additional graphs, tables, and figures relating to the Kodiak commercial salmon fishery are also included in the appendix for information purposes.

Kodiak Management Area Commercial Salmon Fishery

GENERAL

Management Area Description

The Kodiak Management Area comprises the entire Kodiak Archipelago and that portion of the Alaska Peninsula which drains into Shelikof Strait between Cape Douglas and Kilokak Rocks at Imuya Bay. The archipelago is approximately 150 miles long extending from Shuyak Island south to the Trinity Islands. The Alaska Peninsula portion is about 160 miles long and is separated from the archipelago by Shelikof Strait which averages 30 miles in width. Chirikof Island which is located 40 miles south southwest of the Trinity Islands is also included in the Kodiak Management Area (Figure 1).

Management Units

The Kodiak Management Area (Area K) is one of thirteen designated salmon net registration areas in the State of Alaska. Inseason management of the Kodiak commercial salmon fishery is structured around seven districts subdivided into fifty two sections (Figure 2). These sections are occasionally subdivided inseason by emergency order to adjust fishing effort on unexpected salmon surpluses or deficits. Each management unit (section) defines a traditional geographic harvest unit, managed for specific in-unit stocks or traditional fishing patterns associated with these units.

Production Potential

There are 440 documented salmon streams in the Kodiak area; 36 streams support sockeye salmon of extremely varying size, three support viable chinook salmon populations, 174 have productive coho salmon populations, approximately 150 have productive chum salmon populations and the entire set of 440 streams have spawning pink salmon populations. A total of 92 streams are located in the Mainland District on the Alaska Peninsula, of which 18 are on Shuyak Island, 84 on Afognak Island, 234 on Kodiak Island and 12 are on the Trinity Island group (Table 1).

The long term average salmon production potential for the Kodiak Management Area is shown in Table 2. Assuming that desired escapement requirements are achieved and the return per spawner ratios used for each specie remain relatively constant, the potential long term average harvests are estimated at 18,000 chinook, 3.0 million sockeye, 225,000 coho, 7.5-15.0 million pink and 2.7 million chum salmon.

Gear

In the Kodiak area, beach seines were the first gear type used commercially. Initially, beach seines 40 fathoms long were used to harvest sockeye salmon in Karluk Lagoon. As competition for fish grew, the primary harvest location for Karluk sockeye salmon moved to just outside the lagoon using heavily manned beach seines averaging 450 fathoms in length. This evolved into a period of cannery owned traps combined with fisherman owned set gillnet, purse seine and beach seine operations and then to a post statehood situation dominated by purse seine, set gillnet and beach seine gear in decreasing order of abundance. With the inception of limited entry in 1974, the post statehood relationship between gear levels was permanently established.

The geographic areas currently open to specific gear types have remained unchanged since 1974 except for the following situations. In the mid 1970s, in an attempt to accelerate the rebuilding of Karluk stocks, the area between Rocky Point and Cape Uyak in what was then part of the Karluk District, was closed to set gillnetting. No documented gillnetting had occurred in that area since the early 1960s so no existing gillnet sites were affected. More importantly, several prime seining locations which greatly impacted Karluk stocks were made manageable. This critical area was used to provide an increased closed water sanctuary for the severely depleted Karluk sockeye and pink salmon stocks. A second gear/area adjustment occurred in the late 1970s in the Alitak Bay District. The common boundary between the Cape Alitak, Moser-Olga Bay and Humpy-Deadman (formerly Portage-Deadman) Sections was adjusted to clarify an unclear boundary description and minimize the increasing gear conflicts. The area open to set gillnetting was reduced from Cape Alitak to its current location at Tanner Head and was increased from a point south of Fox Island east to approximately its current location. The current boundary north of Fox Island was adjusted in the late 1980s to allow for a set gillnet site which was historically fished. The final gear/area adjustment was made in Zachar Bay. In order to alleviate fixed and mobile gear conflicts at the north "marker set", the closed water sanctuary was reduced and the new "open area" was designated an exclusive seine area. This was consistent with the exclusive seine areas adjacent to the closed water boundaries in other major westside bays open to both gear types.

Processing

Commercial salmon processing in the Kodiak area began in the late 1860s with small saltery operations. Initial canning operations started in 1882. The physical and operational nature of Kodiak processing plants has evolved from scattered seasonally operated canning operations to today's highly efficient, multi-tasked shorebased plants mainly congregated within the city of Kodiak. Although canned salmon is still the primary product, a substantial portion of the salmon harvested is processed as frozen whole or frozen headed and gutted products. The current year round fisheries supporting these processing plants have provided advanced processing technology. In recent years, Kodiak processors have experimented with frozen fillets, frozen minced, fresh, salmon surimi and boneless-skinless canned salmon products.

At this time there are ten processing plants which handle salmon, located within the city limits of Kodiak. In addition, there are four major processing plants located outside the Kodiak city limits; one each in Dry Spruce Bay, Northeast Arm of Uganik Bay, Larsen Bay, and Lazy Bay in Alitak. Mobile, floating processors usually do not participate in the salmon fishery to a high degree and do so only during years of expected large returns of pink salmon. There are two relatively small shorebased processors which specialize in producing only smoked salmon as a finished product.

The latest estimate (1988) of the sustained processing capacity of Kodiak's shorebased salmon processors is approximately 1.1 million salmon per day. With this high processing capacity, it is common for Kodiak processors to "import" salmon harvested elsewhere in the state.

Management

The Kodiak Area commercial salmon management staff is comprised of an Area Management Biologist (FB III), two Assistant Area Management Biologists (FB II's, one fulltime, one seasonal), and approximately 15 seasonal employees (FB I's and FWT I - IV's). The Kodiak salmon research staff includes an Area Research Biologist (FB II) and approximately six seasonal employees. A Regional Management Coordinator (FB IV) and a Regional Research Biologist (FB III) oversee each of these operations.

Inseason management actions are structured to adhere to a generalized plan described in an annually issued Harvest Strategy. This strategy recognizes a specific chronology of management actions related to salmon run timing by species (See Figure 3). In addition, inseason management actions are guided by regulatory management plans. There are currently five management plans in regulation (Table 3). These management plans generally reflect traditional fishing opportunities and the subsequent harvest allocations which have resulted between and within gear types participating in these specific fisheries.

Besides addressing in-area allocative and biological concerns, there are two management plans which address either allocative and/or biological concerns between salmon registration areas. The first plan adopted was the Cape Igvak Salmon Management Plan which allocates a percentage of the harvestable surplus Chignik bound sockeye salmon to Kodiak seine permit holders when specific allocative and biological goals are achieved in Chignik. The second plan adopted, was the North Shelikof Strait Sockeye Salmon Management Plan, which restricts the ability of the Kodiak seine fleet to target on Cook Inlet bound sockeye salmon migrating through Shelikof Strait through the use of area specific closures referred to as the, "Seaward Zone", which are triggered when a specific "harvest cap" is achieved.

Basic inseason management activities center around daily evaluations of actual run strength in comparison to preseason expectations by species and in the case of sockeye and pink salmon, by major systems. The management staff's inseason duties include frequent (daily) contact with all buyers to collect updated harvest data by area and species, as well as maintaining a dialog with

as many permit holders as possible to collect their opinions of actual run strength and distribution, as well as comments on inseason management activities. Additional duties include the collection of escapement data from up to sixteen fish weirs (twice daily) and from numerous aerial observations of fish "buildups" and actual escapements into management "index streams". Additional inseason information on return stock strength is obtained from an Alaska Department of Fish and Game (ADF&G) sockeye salmon test gillnet fishery in the Alitak Bay District.

Since the mid 1970s, actual fishing time has been regulated through the use of emergency order's (E.O.'s) to announce through the use of a detailed news release, specific details of when and which areas are open to fishing. Prior to the use of fishing periods established by E.O., fishing periods were set by regulation and any inseason changes, such as closures, were announced by E.O.

Stock Status

Chinook Salmon

The Kodiak area has two naturally occurring chinook salmon populations and several introduced populations. The natural chinook salmon populations occur in the Ayakulik and Karluk Rivers. A small introduced chinook salmon run occurs in the Fraser Lake/Dog Salmon River which appears to be successfully maintaining itself. Annual escapements are monitored into all three systems with the use of fish weirs, which provide accurate escapement counts. There are no directed commercial fisheries targeting these stocks and any commercial harvest occurs incidently in fisheries targeting sockeye and pink salmon. Sport fisheries targeting chinook salmon populations in the Ayakulik and Karluk Rivers are becoming increasingly more intense as commercial sport fish operators and recreational anglers continue to "discover" fishing opportunities in the Kodiak area. At this time the chinook salmon run into Fraser Lake/Dog Salmon River appear to be only lightly exploited by recreational and commercial sport fishermen. Currently all three chinook salmon runs are considered healthy by both ADF&G and U.S. Fish and Wildlife Service (FWS - Kodiak National Wildlife Refuge) in that escapement requirements are being achieved on an annual basis.

There are two other chinook populations in the Kodiak area which are introduced runs. One is at Pasagshak River where chinook salmon eggs taken from Chignik River chinook salmon were used to begin a chinook salmon run on the Kodiak "road system". Overall, the productivity of this run has been less than pre-project expectations.

The other newly introduced chinook salmon population is basically designed to support "put and take" recreational fisheries located at Mill Bay near the city of Kodiak. Chinook salmon smolt from the Elmendorf hatchery have been released into Island Lake with approximately 100,000 fish being released annually beginning in 1989.

Sockeye Salmon

Of the 36 known sockeye salmon populations in the Kodiak area, four are considered to be major systems capable of returns greater than 500,000 fish. These four systems are Karluk, Ayakulik, Upper Station and Fraser. The first three systems are naturally occurring runs and Fraser Lake supports a very successful introduced sockeye salmon run which is maintained through the use of a "fish ladder". There are eleven other sockeye systems which are considered to be significant minor populations (escapement ranges less than 60,000 fish) located at Afognak, Saltery, Kaflia, Pauls, Swikshak, Little River, Malina, Thorsheim, Buskin, Uganik, and Portage Lakes. The remaining 21 systems are comparatively minor systems and are not usually exploited by directed commercial effort.

The four major systems generally provide approximately 80 percent of Kodiak's current sockeye salmon production. Directed fisheries on these stocks are intense and require extensive management activities from June 5 through September 20. Two of these systems (Karluk and Upper Station) have distinct early and late runs (May 25 through July 15; July 16 through September 20). Fraser is primarily an early returning stock with most of the run entering fresh water by July 20. Ayakulik is also an early returning stock which continues into mid August. An example of the combined maximum production from these stocks was realized in 1990 and 1991 when new record high sockeye salmon harvests of 5.2 and 5.7 million fish respectively were attained. The rebuilding efforts on these stocks started in 1970. The overall escapement goals for these four major systems has been achieved annually since 1988. The rebuilding efforts, (i.e. restricting commercial fisheries and favorable environmental conditions) appear to have worked. Production from these systems should remain relatively stable providing existing "fish weir" programs and management strategies are not adversely affected and as with all wild stocks, favorable environmental conditions persist.

The eleven significant minor systems, annually account for approximately five percent of Kodiak's current sockeye salmon production. Some of these systems are monitored with fish weirs (Afognak Lake, Pauls, Saltery, Uganik, Malina, and Buskin) and the remainder by aerial survey. The use of fish weirs on these minor systems allows for a more precise stock management.

Budget reductions have already cut into the department's ability to use fish weirs at Saltery, Pauls, and Portage and the FWS future use of a fish weir on Uganik River. With the exception of Malina, Pauls Bay and Portage, these minor systems are considered healthy.

The sockeye salmon run into Buskin Lake is not targeted by a commercial fishery. All fish surplus to escapement requirements are currently harvested in a subsistence fishery and to a much lesser degree in a recreational sport fishery. Without the use of fish weirs on the most heavily targeted systems, a more conservative management approach needs to be taken in order to ensure that biological protection for these stocks is assured.

There is considerable activity in providing for additional sockeye salmon production through introduced runs and enhancing weaker natural runs by the Kodiak Regional Aquaculture Association in conjunction with ADF&G Fisheries Rehabilitation and Enhancement Division (F.R.E.D). Through the use of remote egg takes and hatchery incubation, sockeye salmon fry are being out-stocked into both barren and non-barren lakes to provide for future sockeye salmon fisheries. Advancements into releasing sockeye as "0 checks" directly into the marine environment are being made in attempts to provide for early and late sockeye salmon runs at Kitoi Bay hatchery. Pillar Creek, located near the city of Kodiak, is the only other hatchery located in the Kodiak area and is used primarily in the sockeye salmon out-stocking programs. The current trend in escapement monitoring and enhancement activities which are supported financially by the commercial permit holders is encouraging.

Coho Salmon

This species in recent years has received the greatest increase in exploitation of any salmon species in the Kodiak area. All user groups have a sharp interest in harvesting this species. As indicated earlier, approximately 174 systems support coho salmon populations, however approximately 20 percent of these populations generate 80 percent of the area's production. The nature of these major systems (most are lake systems, several of which have fish weirs) almost ensures that at least minimum escapement levels will be achieved if knowledgeable inseason management strategies prevail. The greatest concern is for the remaining 80 percent of the streams whose populations are relatively small and subject to overexploitation, especially in years during low water flows. As with chinook salmon, there is an increasing trend in the number of commercial sport fish operators targeting their clients on Kodiak's coho populations. In order to provide adequate protection for these smaller stocks all user groups need to be monitored inseason for potential changes in harvest rates which may not necessarily correspond with fluctuation in run strength.

Pink Salmon

With the exception of the 1992 season, Kodiak area pink salmon production has been relatively stable and should remain so, provided existing management strategies and inseason management activities are retained. The recent dip in even year production and increased odd year production appears to be a function of adverse climatic conditions (even year returns) versus favorable environmental conditions (recent odd year returns). The historical databases on harvests, escapements and preemergent fry densities are fairly extensive. Preseason forecasts are reliable in projecting extremes for total area production. Forecast precision is reliably adequate to ensure that ADF&G management goals (adequate escapement and orderly fishing opportunities on quality fish) and industry goals (maximum cost efficient production) are commonly attained. Since pink salmon represent the base of Kodiak salmon production (averaging 70 percent of the total area harvest) and because of the stability associated with management of this species, the long term status for Kodiak's wild stock pink salmon populations is very good.

In regards to supplemental pink salmon production, there is one hatchery, located at Kitoi Bay on Afognak Island, which produces pink salmon. In recent years pink salmon returns to this hatchery have ranged from approximately one million to seven million fish.

Chum Salmon

Increasing emphasis on chum salmon management over the past 14 years has increased the database (escapements, run timing, harvests) necessary to ensure that current management activities will be continued and improved upon. Increases in directed fishing on specific chum salmon stocks and the special difficulties associated with evaluating inseason run strength and timing for these stocks combined with efforts to harvest better quality fish (bright vs. dark) has required that more intensive chum salmon stock management strategies be developed.

Through continued improvements in escapement monitoring and increasing efforts toward developing formal forecasts utilizing information collected during the preemergent pink salmon fry sampling project and implementing a catch sampling program to collect age data, the future status of this species is expected to be very good.

There is one hatchery program (Kitoi Bay) in the Kodiak area which is in the process of developing an early run chum return to the hatchery. This program is still in the developmental phase. Significant supplemental production is expected to occur within the next four years.

1992 Season Summary

The 1992 Kodiak commercial salmon season started on June 9 with a 33 hour fishing period in the Alitak Bay and Northwest Kodiak Districts with fishing activity lasting until October 7, 121 days later, when the last landing was reported (See Figure 3). A total of 41 emergency orders were issued this season to regulate fishing time and areas open to fishing (See Table 4 and Figure 4). Considering the much less than expected return of pink salmon and to a lesser degree, less than expected sockeye salmon returns to specific systems, management activities this season can be characterized as successful in that overall escapement requirements were adequately achieved for all species. A total of 526 permit holders (12 beach seine, 178 set gillnet, and 336 purse seine) participated in the fishery this season making a total of 16,400 deliveries. Throughout the season, a total of 14 different buyer/processors representing 12 companies were also involved in this years' fishery.

The 1992 salmon return originated from the sockeye and chinook salmon escapements achieved in 1986 through 1988, the chum salmon escapements in 1987 through 1989, the coho salmon escapements in 1988 and 1989, and the pink salmon escapements attained in 1990. The escapements which occurred this season will affect the 1994 pink salmon return, the 1996-1998 sockeye and chinook salmon returns, the 1995-1998 chum salmon returns and the coho salmon returns in 1995-1996.

A total of 8.46 million salmon (of which 39% were pink salmon) were harvested this season. Preseason harvest expectations were for a total of 13.6 million fish (of which 68% were pink salmon). A graphic depicting the daily harvests by species for the entire season is shown in Figure 5.

A detailed summary of this year's harvest by week, by species, by management unit is located in Table 5.

The overall estimated exvessel value of $39.9 million dollars for Kodiak's commercial salmon harvest is $2.9 million dollars higher than the 1991 season but well below the record $104 million dollar season in 1988 (Table 6).

The 1992 effort levels (active gear) were above average for purse seine gear and below average for beach seine and set gillnet gear permit holders. A comparison of "fishable gear" and permits actually fished is listed in Table 7. Approximately 74% of the permits are owned by residents (Table 8).

A summary of the 1992 actual harvest by species by major fishery compared to preseason harvest expectations is shown in Table 9.

Historical Kodiak area salmon harvests by species by year are shown in Table 10.

Chinook Salmon Harvest

This years harvest included 24,300 chinook salmon (average weight 14.3 lb) which is the largest chinook salmon harvest on record. This is close to the past three years (1988, 1990, 1991) average harvest of 21,000 fish. Chinook salmon are harvested incidentally during fisheries targeting sockeye, pink or chum salmon.

Purse seiners harvested 85 percent, set gillnetters 14 percent and beach seiners 1 percent of the total chinook salmon harvest.

Chum Salmon Harvest

Preseason expectations were for a chum salmon harvest of 870,000 fish. The actual harvest was 679,500 chum salmon (average weight 7.25 lb). In comparison, this year's harvest is below the recent ten year average of 962,000 chum salmon. Chum salmon are primarily harvested in targeted chum fisheries and during mixed pink and chum salmon fisheries.

Pink Salmon Harvest

The pink salmon harvest of 3.31 million fish (average weight 3.75 lb) was 6.0 million fish less than the preseason harvest expectations. Poor environmental conditions in 1991 which adversely affected initial early marine plankton production seems to be the most reasonable explanation for

pink salmon returning in less than expected numbers. Twenty six percent (845,000 fish) of this year's pink salmon harvest was caught in fisheries targeting pink salmon returning to Kitoi Bay hatchery. Overall, this was the lowest even year harvest since 1974 where 2.6 million pink salmon were harvested and well below the past five even years (1982-1990) average harvest of 10.1 million fish. Purse seiners harvested 83 percent, set gillnetters 16 percent and beach seiners 1 percent of the total pink salmon catch this season. Most of the pink salmon harvest occurs between July 6 and August 31.

Actual weekly fishing periods are determined preseason based on the strength of the forecasted pink salmon return (Figure 6, excerpt from 1992 Kodiak Commercial Salmon Harvest Strategy and Figure 7, Historical Fishing Time by Area). The initial fishing period in 1992 was 57 hours long beginning 12:00 noon on July 6. The next three weekly fishing periods were 81 hours each. By the end of July, the actual pink salmon harvest was tracking well below preseason expectations. Fishing time was reduced during the peak of the run in order to allow maximum numbers of pink salmon to reach spawning streams and closed water sanctuaries. No targeted fishing time was allowed on pink salmon after August 12. During the peak of the return to Kitoi Bay hatchery, continuous fishing was allowed from July 28 to August 8 in the Duck Bay, Izhut Bay and Kitoi Bay Sections in order to harvest fish surplus to broodstock requirements. The overall quality of this year's pink salmon (based on processor reports) was excellent.

Coho Salmon Harvest

A total of 280,000 coho salmon (average weight 8.18 lb) were also harvested this season. This ranks as the seventh largest harvest on record. Preseason harvest expectations were for a harvest of 250,000 coho salmon. Purse seines harvested 82 percent, set gillnetters 18 percent, and beach seiners less than 1 percent of the coho salmon catch. To a limited degree, coho are incidentally harvested during August fisheries targeting pink and chum salmon. However in 1992, due to the severely limited pink salmon fisheries, a significant portion of the coho were harvested in fisheries targeting late run sockeye returning to Upper Station and Karluk Lakes. Due to weak returns there were no directed coho fisheries allowed in Chiniak Bay (near Kodiak City)

Sockeye Salmon Harvest

There were 4.17 million sockeye salmon (average weight 5.68 lb) harvested in the Kodiak Area this season. This is the fifth largest harvest on record (only 1991, 1990, 1908 and 1901 were higher). Preseason expectations were for a harvest of 3.25 million sockeye salmon. Purse seiners harvested 80 percent, set gillnets 20 percent and beach seiners less than 1 percent of the sockeye salmon caught this season.

Generally, the majority of sockeye salmon harvested in the Kodiak Management Area are caught in directed sockeye salmon fisheries based on an allocation plan (Cape Igvak) and in terminal and near terminal management units targeting sockeye bound to Kodiak's major and minor sockeye systems. However in 1992, a significant portion of the sockeye salmon harvested were caught in fisheries where pink and chum salmon are the targeted management species. Based

on fish size (average wts), limited catch (Age-Weight-Length) samples and the time of harvest (approximately July 6 through July 25) (Figure 8) approximately 1.3 million of the sockeye salmon harvested were considered to have not been bound for Kodiak spawning systems. Once again, based on limited AWL data, the most probable destination for a majority of these sockeye was the Kenai River located in upper Cook Inlet. An additional 600,000 non-Kodiak bound sockeye may have been harvested in conjunction with terminal and near terminal fisheries, which were targeting sockeye bound to Kodiak spawning systems, such as Fraser Lake, Ayakulik, and Karluk (Table 11). At this time the best estimate of the contribution of non-Kodiak bound sockeye to the overall sockeye harvest this year is approximately 1.5 to 1.9 million fish or 36 to 46 percent of the total harvest of 4.17 million sockeye salmon.

A detailed summary of sockeye fisheries which occur under the Cape Igvak, North Shelikof Strait Sockeye Salmon, and Alitak Bay District Management Plans are in the Appendix portion of this report. Additional graphs and tables relating to this year's salmon harvest by area, time, and in relation to past years are also located in the Appendix portion of this report.

Exvessel Value

As mentioned earlier, the overall estimated exvessel value for this year's commercial salmon harvest was $39.9 million dollars (Table 12). By species, the sockeye salmon harvest of 4.17 million fish was worth $34.3 million dollars (86% of total value), the chum salmon harvest of 679,500 fish was worth $2.0 million dollars (5.0 percent), the pink salmon harvest of 3.31 million fish was worth $1.9 million dollars (4.6 percent), the coho harvest of 280,000 fish was worth $1.4 million dollars (3.5 percent), and the chinook salmon harvest of 24,300 fish was worth $0.35 million dollars (< 1 percent).

By gear type, beach seiners averaged $5,000, purse seiners $96,000 and set gillnetters $42,000 per permit holder, participated this season.

Escapement

A summary of escapement goals by geographic area, by species versus actual 1992 escapement estimates is listed in Table 13.

Sockeye Salmon Escapement

Sockeye salmon escapements for major and selected systems were monitored through the use of fish counting weirs. Two minor system weirs (Saltery and Pauls Bay) were closed early this year due to budget reductions. Escapement counts through all weirs in the Kodiak area are actual hand-tallied counts by species. Electronic (sonar) or timed counts are not used and the gates are closed when personnel are not present to count.

A total of 1.85 million sockeye salmon were counted through weirs located at Upper Station Lake, Afognak Lake, Buskin Lake (ADF&G Sport Fish), Pauls Bay (prior to 7/1/92), Saltery Lake (prior to 7/1/92), Uganik River (FWS), Ayakulik River, Malina Lake (FRED/KRAA), and Perenosa River (prior to 7/1/92). An additional 118,000 sockeye (indexed counts) were counted as escapement into other minor systems such as Kaflia Lakes, Little River Lake, and Swikshak Lagoon, bringing this year's sockeye escapement total to 1.97 million fish. The desired indexed escapement goal for all systems combined is 2.0 million sockeye.

Pink Salmon Escapement

Pink salmon escapements ranged from poor to excellent with the weaker areas being the Alitak Bay District and streams located in Ugak and Chiniak Bay and Karluk River. The overall indexed pink salmon escapement this season is 3.5 million fish. The overall indexed escapement goal for even years is between 2.4 and 6 million pink salmon. Ayakulik and Karluk Rivers are dominant even year pink salmon systems and usually account for 1.2 to 2.4 million of the total pink salmon counted as escapement through fish weirs. This year the pink salmon escapement into the Ayakulik River was 666,000 fish (escapement goal 400,000 - 800,000) while the pink salmon escapement into Karluk River was 401,000 (escapement goal 800,000 - 1,600,000). Aerial surveys are utilized to monitor pink salmon escapements into other major pink salmon systems.

Chum Salmon Escapement

This year's overall indexed chum salmon escapement of 530,000 fish is at the low end of the escapement goal range of 500,000 to 1.5 million fish. Streams located in Alitak, Dry, Inner Ugak, and Kizhuyak Bays experienced relatively poor returns of chum salmon while streams in Zachar, Wide, and Kukak Bays had good returns. Chum salmon escapements are monitored via aerial surveys. Subsequently, year end escapements may be used as minimum estimates since water clarity (visibility) in major chum systems is much more variable than for most major pink salmon systems.

Coho Salmon Escapement

Overall, indexed coho salmon escapements were good with the weaker areas being Chiniak Bay streams. This years overall indexed escapement was 290,000 fish. The areawide indexed escapement goal for coho salmon is 150,000 fish. Coho escapements are monitored partially by salmon counting weirs and aerial surveys. These estimates should also be considered minimum estimates since fluctuations in fall water flows may shorten weir operations due to flooding conditions and lengthy periods of adverse weather conditions may eliminate or reduce aerial survey opportunities.

Chinook Salmon Escapement

The overall escapement goal for chinook salmon is 18,000 fish for the three spawning systems which support viable chinook spawning populations. In 1992, the chinook salmon escapement goals were achieved with a total escapement of 19,000 fish. Ayakulik River received 9,100 chinook salmon, Karluk River 9,600 chinook salmon and Dog Salmon/Fraser Lake received 265 chinook salmon counted as escapement. Escapement counts for all three systems are actual fish counted which passed through fish counting weirs.

Subsistence Salmon Fishery

With few restrictions, the entire Kodiak Management Area is open to subsistence salmon fishing. Anyone who is a resident of the State of Alaska is eligible to obtain a subsistence fishing permit. Permits are issued annually. Reported harvests have averaged 24,000 fish annually for the past ten years with sockeye salmon accounting for 61 percent followed by coho salmon which accounted for 26 percent. A summary of annual subsistence salmon harvests by year by species is listed in Table 14. Detailed harvest information is also collected in order to identify important subsistence harvest locations and the actual number of fish by species harvested at these locations. A separate review document on the Kodiak Area subsistence salmon fishery will be presented to the Board of Fish, titled "1992 Review of Subsistence Regulations/Kodiak and Chignik".

Outlook for 1993

Initial harvest projections for the 1993 Kodiak commercial salmon fishery indicate that approximately 21,000 chinook, 290,000 coho, and 1,200,000 chum salmon should be available for harvesting. In addition, up to 15 million wild stock and 6.5 million hatchery produced (Kitoi Bay) pink salmon should be available for harvesting. Initial estimates for sockeye salmon returns in 1993 are for less than expected (based on brood year escapements) levels to Fraser Lake and Ayakulik River. At this time the overall sockeye harvest for Kodiak in 1993 should be near 2.4 million fish (Table 9).

The 1993 Harvest Strategy should be available by mid May (1993) and will contain a regulatory update dependent on any new regulations adopted by the Alaska Board of Fish. The first fishing period targeting sockeye salmon is expected to begin on June 9. The pink salmon fishery started July 6 and based on the preseason forecast, initial fishing periods will be 4-1/2 days per week.

Table 1. Estimated number of salmon production systems per district,[a] with species distribution[b], Kodiak Management Area, 1992.

Management District	Number of Streams	Number of Streams with Each Species				
		Chinook	Sockeye	Coho	Pink	Chum
Afognak	102	0	13	48	102	5
N.W. Kodiak	63	0	4	22	63	23
S.W. Kodiak	11	2	2	10	11	6
Alitak	30	1	5	15	30	14
Eastside Kodiak	116	1	8	32	116	47
N.E. Kodiak	26	0	1	20	26	9
Mainland	92	0	6	27	92	46
TOTAL	440	4	39	174	440	150

[a] The total number of streams identified in this table are depicted on the 1992 Kodiak Area Salmon District Map.

[b] These estimates are based on current knowledge and, in fact, are expected to change as more system specific data is collected.

Table 2. Salmon production (Potential vs Actual) for the Kodiak Management Area, 1992.

SPECIES	PRODUCTION POTENTIAL			HARVEST		
	LONG TERM AVERAGE			POTENTIAL	ACTUAL	
	Desired Indexed Escapement	Return Per Spawner	Total Return	Long Term Average	44 Year Period (1948-1992)	10 Year Period (1982-1992)
CHINOOK	0.018	2.5	0.036	0.018	.003	.010
SOCKEYE	2.000	2.5	5.000	3.000	1.080	2.759
COHO	0.150	2.5	0.375	0.225	.092	.255
PINK O.[b]	3.000	3.5	10.500	7.500	5.849	8.413
PINK E.[c]	6.000	3.5	21.000	15.000	8.865	10.142
CHUM	1.500	2.8	4.200	2.700	.784	.919
TOTAL O.[b]	6.668	-	20.111	13.443	7.808	12.356
TOTAL E.[c]	9.668	-	30.611	20.943	10.824	14.085

[a] Natural production.
[b] O. = Odd numbered years.
[c] E. = Even numbered years.

11/23/92

Table 3. Currently there are five (5) Board of Fisheries approved management plans which provide guidance to ADF&G for specific portions of the Kodiak Management Area. Also, there is a sixth (6) management plan associated with production from Kitoi Bay hatchery.

MANAGEMENT PLAN	YEAR INITIATED	MGMT. UNITS AFFECTED	DATES IN EFFECT
Cape Igvak Management Plan	1978	Cape Igvak Section Wide Bay Section	6/5-7/25
Kitoi Bay Hatchery Management Plan	1981	Kitoi Bay Section Izhut Bay Section Duck Bay Section	6/9-10/1
Alitak District Management Plan	1987	Alitak Bay District	6/9-10/1
Westside Kodiak Management Plan	1990	N.W. Kodiak District S.W. Kodiak District S.W. Afognak District	6/9-10/1
Crescent Lake Management Plan	1990	Portion of the Central Section in Vicinity of Port Lions	8/1-9/15
N. Shelikof Strait Sockeye Salmon Management Plan	1990	S.W. Afognak Section N.W. Afognak Section Shuyak Section Big River Section Hallo Bay Section Inner and Outer Kukak Sect. Dakavak Section	7/6-7/25

Table 4. Summary of Emergency Orders issued for the Kodiak Management Area, 1992.

E.O. No.	Time/Date Issued	Time/Date Effective	Action Taken
1	12:00 Noon 6/05/92	12:01 A.M. 6/06/92	**Closure** of all waters of the Kodiak Management Area beyond the Territorial Sea Boundary (3-mile limit) to commercial salmon fishing for the entire season.
2	10:00 A.M. 6/07/92	12:00 Noon 6/09/92	**Opening** for 33 hours 12:00 Noon 6/9 - 9:00 P.M. 6/10 - Alitak Bay District and Northwest Kodiak District **except** for the Kizhuyak Bay Section.
3	1:00 P.M. 6/13/92	12:00 Noon 6/15/92	**Opening** for 33 hours 12:00 Noon 6/15 - 9:00 P.M. 6/16 - Afognak District **except** for Perenosa and Kitoi Bay Sections. - Northwest Kodiak District **except** for the Kizhuyak Section. - Eastside Kodiak District. - Big River and Outer Kukak Sections. - Closed waters reduced at Saltery Cove and Kaflia Bay to stream terminus.
4	10:00 A.M. 6/14/92	9:00 P.M. 6/15/92	**Opening** for 48 hours 9:00 P.M. 6/15 - 9:00 P.M. 6/17 - Outer Ayakulik Section and Inner Ayakulik Section start by flare.
5	4:00 P.M. 6/16/92	12:00 Noon 6/17/92	**Opening** for 33 hours 12:00 Noon 6/17 - 9:00 P.M. 6/18 - Alitak Bay District
		9:00 P.M. 6/17/92	**Extension** for 24 hours 9:00 P.M. 6/17 -9:00 P.M. 6/18 - Inner and Outer Ayakulik Sections.
6	4:30 P.M. 6/17/92	12:01 A.M. 6/19/92	**Opening** for 24 hours 12:01 A.M. 6/19 - 12:01 A.M. 6/20 - Cape Igvak Section
		9:00 P.M. 6/18/92	**Extension** for 48 hours 9:00 P.M. 6/18 - 9:00 P.M. 6/20 - Inner and Outer Ayakulik Sections.
7	3:00 P.M. 6/18/92	9:00 P.M. 6/18/92	**Extension** for 48 hours 9:00 P.M. 6/18 - 9:00 P.M/ 6/20 - Alitak Bay District

-Continued-

Table 4. (page 2 of 10)

E.O. No.	Time/Date Issued	Time/Date Effective	Action Taken
8	11:00 A.M. 6/20/92	9:00 P.M. 6/20/92	**Extension** for 48 hours 9:00 P.M. 6/20 - 9:00 P.M. 6/22
			- Inner and Outer Ayakulik Sections
		12:00 Noon 6/22/92	**Opening** for 33 hours 12:00 Noon 6/22 - 9:00 P.M. 6/23
			- Afognak District **except** for Perenosa and Kitoi Bay Sections
			- Northwest Kodiak District **except** for the Kizhuyak Bay Section
			- Eastside Kodiak District
			- Outer Kukak and Big River Sections
			- Closed waters reduced at Saltery Cove and Kaflia Bay to stream terminus
9	1:30 P.M. 6/22/92	9:00 P.M. 6/22/92	**Extension** for 48 hours 9:00 P.M. 6/22 - 9:00 P.M. 6/24
			- Inner and Outer Ayakulik Sections north of 57°13'09" N. Latitude
		12:00 Noon 6/23/92	**Opening** for 33 hours 12:00 Noon 6/23 - 9:00 P.M. 6/24
			- Alitak Bay District
		9:00 P.M. 6/23/92	**Extension** for 24 hours 9:00 P.M. 6/23 - 9:00 P.M. 6/24
			- Southwest Afognak Section
			- Northwest Kodiak District **except** for Kizhuyak Section
10	2:00 P.M. 6/24/92	9:00 P.M. 6/24/92	**Extension** for 48 hours 9:00 P.M. 6/24 - 9:00 P.M. 6/26
			- Alitak Bay District
			- Southwest Afognak Section
			- Northwest Kodiak District **except** for Kizhuyak Bay Section and the Inner Uganik Bay Section
		12:00 Noon 6/25/92	**Opening** for 33 hours 12:00 Noon 6/25 - 9:00 P.M. 6/26
			- Outer Karluk Section
			- Halibut Bay Section
11	8:00 A.M. 6/25/92	8:00 A.M. 6/26/92	**Opening** for 40 hours 8:00 A.M. 6/26 - 12:01 A.M. 6/28
			- Cape Igvak Section

-Continued-

Table 4. (page 3 of 10)

E.O. No.	Time/Date Issued	Time/Date Effective	Action Taken
12	12:00 Noon 6/26/92	9:00 P.M. 6/26/92	**Extension** for 48 hours 9:00 P.M. 6/26 - 9:00 P.M. 6/28 - Southwest Afognak Section - Outer Karluk Section - Northwest Kodiak District **except** for Kizhuyak Bay, Inner Uganik Bay and Zachar Bay Sections.
13	11:30 A.M. 6/27/92	12:01 A.M. 6/28/92	**Extension** for 24 hours 12:01 A.M. 6/28 - 12:01 A.M. 6/29 - Cape Igvak Section
		9:00 P.M. 6/28/92	**Extension** for 48 hours 9:00 P.M. 6/28 - 9:00 P.M. 6/30 - Southwest Afognak Section - Outer Karluk Section - Northwest Kodiak District **except** for Kizhuyak Bay, Inner Uganik Bay and Zachar Bay Sections.
14	11:45 A.M. 6/28/92	12:01 A.M. 6/29/92	**Extension** for 24 hours 12:01 A.M. 6/29 - 12:01 A.M. 6/30 - Cape Igvak Section
15	2:00 P.M. 6/29/92	12:00 Noon 6/30/92	**Opening** for 57 hours 12:00 Noon 6/30 - 9:00 P.M. 7/02 - Inner Karluk Section with reduced closed waters sanctuary.
		9:00 P.M. 6/30/92	**Extension** for 48 hours 9:00 P.M. 6/30 - 9:00 P.M. 7/2 - Southwest Afognak Section - Outer Karluk Section - Northwest Kodiak District **except** for Kizhuyak Bay, Inner Uganik Bay and Zachar Bay Sections.
16	1:00 P.M. 7/01/92	12:00 Noon 7/02/92	**Opening** for 33 hours 12:00 Noon 7/02 - 9:00 P.M. 7/03 - Alitak Bay District
		9:00 P.M. 7/02/92	**Extension** for 144 hours 9:00 P.M. 7/02 - 9:00 P.M. 7/08 - Inner and Outer Karluk Sections - Southwest Afognak Section - Northwest Kodiak District **except** for Kizhuyak Bay, Inner Uganik Bay and Zachar Bay Sections

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Table 4. (page 4 of 10)

E.O. No.	Time/Date Issued	Time/Date Effective	Action Taken
17	2:00 P.M. 7/03/92	9:00 P.M. 7/03/92	**Extension** for 48 hours 9:00 P.M. 7/03 - 9:00 P.M. 7/05
			- Alitak Bay District
		12:00 Noon 7/04/92	**Opening** for 33 hours 12:00 Noon 7/04 - 9:00 P.M. 7/05
			- Halibut Bay Section
		12:00 Noon 7/06/91	**Opening** for 57 hours 12:00 Noon 7/6 - 9:00 P.M. 7/08
			- Remainder of the Afognak District **except** for the Perenosa Bay and Kitoi Bay Sections. Closed waters reduced to subsistence markers at Litnik.
			- Northeast Kodiak District **except** for the Buskin River Section
			- Eastside Kodiak District
			- Mainland District **except** for the Cape Igvak and Wide Bay Sections

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Table 4. (page 5 of 10)

E.O. No.	Time/Date Issued	Time/Date Effective	Action Taken
18	11:45 A.M. 7/05/92	9:00 P.M. 7/05/92	**Extension** for 72 hours 9:00 P.M. 7/5 - 9:00 P.M. 7/08
			- Halibut Bay Section
			- Alitak Bay District
19	10:00 A.M. 7/08/92	1:00 P.M. 7/08/92	**In-period Closure** effective 1:00 P.M. 7/08 to 12:01 A.M. 7/26
			- "Seaward Zone" closure in Shuyak Island, Northwest Afognak, Big River, Hallo Bay, Outer Kukak and Dakavak Sections.
		9:00 P.M 7/08/92	**Extension** for 72 hours 9:00 P.M. 7/08 - 9:00 P.M. 7/11
			- Halibut Bay Section
			- Southeast Afognak Section
		5:00 P.M. 7/09/92	**Opening** for 52 hours 5:00 P.M. 7/09 - 9:00 P.M. 7/11
			- Outer Ayakulik Section
			- Inner Ayakulik Section - start by flare
20	5:40 P.M. 7/08/92	12:01 A.M. 7/10/92	**Opening** for 48 hours 12:01 A.M. 7/10 - 12:01 A.M. 7/12
			- Cape Igvak Section
21	10:45 A.M. 7/11/92	9:00 P.M. 7/11/92	**Extension** for 72 hours 9:00 P.M. 7/11 - 9:00 P.M. 7/14
			- Halibut Bay Section
			- Southeast Afognak Section
		12:01 A.M. 7/12/92	**Extension** for 48 hours 12:01 A.M. 7/12 - 12:01 A.M. 7/14
			- Cape Igvak Section
		12:00 Noon 7/13/92	**Opening** for 81 hours 12:00 Noon 7/13 - 9:00 P.M. 7/16
			- Remainder of the Afognak District **except** for "Seaward Zones" of N.W. Afognak and Shuyak Island Sections and the Kitoi Bay Section
			- Northwest Kodiak District **except** for Inner Uganik B. and Zachar B. Sections
			- Northeast Kodiak District
			- Eastside Kodiak District

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Table 4. (page 6 of 10)

E.O. No.	Time/Date Issued	Time/Date Effective	Action Taken
21 (continued)		12:00 Noon 7/13/92	**Opening** for 57 hours 12:00 Noon 7/13 - 9:00 P.M. 7/15
			- Alinchak Bay, Katmai and Inner Kukak Bay Sections, Dakavak Bay, Outer Kukak, Hallo Bay and Big River Sections **except** for "Seaward Zones".
22	1:00 P.M. 7/13/92	12:01 A.M. 7/14/92	**Extension** for 48 hours 12:01 A.M. 7/14 - 12:01 A.M. 7/16
			- Cape Igvak Section
		9:00 P.M. 7/14/92	**Extension** for 48 hours 9:00 P.M. 7/14 - 9:00 P.M. 7/16
			- Halibut Bay Section
			- Southeast Afognak Section
23	10:0 A.M. 7/14/92	1:00 P.M. 7/14/92	**In Period Closure** 1:00 P.M. 7/14 - 12:01 A.M. 7/26
			- "Seaward Zone" of the Southwest Afognak Section
		12:00 Noon 7/15/92	**Opening** for 33 hours 12:00 Noon 7/15 - 9:00 P.M. 7/16
			- Alitak Bay District
24	2:15 P.M. 7/15/92	12:01 A.M. 7/16/92	**Extension** for 48 hours 12:01 A.M. 7/16 - 12:01 A.M. 7/18
			- Cape Igvak Section
		9:00 P.M. 7/16/92	**Extension** for 24 hours 9:00 P.M. 7/16 - 9:00 P.M. 7/17
			- Cape Alitak Section
			- Moser-Olga Bay Section
25	10:00 A.M. 7/17/92	12:00 Noon 7/20/92	**Opening** for 81 hours 12:00 Noon 7/20 - 9:00 P.M. 7/23
			- Afognak District **except** for the "Seaward Zones" of N.W. Afognak and Shuyak Island Sections
			- Kitoi Bay Section seaward of "Jaws"
			- Northwest Kodiak District **except** for Inner Uganik Bay and Zachar Bay Sections.
			- Cape Alitak and Moser-Olga Bay Sections
			- Northeast Kodiak District
			- Eastside Kodiak District
		12:00 Noon 7/20/92	**Opening** for 57 hours 12:00 Noon 7/20 - 9:00 P.M. 7/22
			- Alinchak Bay, Katmai and Inner Kukak Sections

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Table 4. (page 7 of 10)

E.O. No.	Time/Date Issued	Time/Date Effective	Action Taken
25 (continued)			- Dakavak Bay, Outer Kukak Bay, Hallo Bay and Big River Sections **except** for the "Seaward Zones"
26	11:30 A.M. 7/24/92	12:00 Noon 7/27/92	**Opening** for 81 hours 12:00 Noon 7/27 - 9:00 P.M. 7/30 - Afognak District - Kitoi Bay Section - start by flare - Northwest Kodiak District **except** for Inner Uganik Bay and Zachar Bay Sections - Northeast Kodiak District - Eastside Kodiak District - Cape Alitak and Moser-Olga Bay Sections - Southwest Kodiak District **except** for that portion of the Inner and Outer Ayakulik Sections south of 57°13'09" N. Lat.
		12:00 Noon 7/27/92	**Opening** for 57 hours 12:00 Noon 7/27 - 9:00 P.M. 7/29 - Mainland District
27	10:00 A.M. 7/26/92	12:00 Noon 7/27/92	**Opening** for 81 hours 12:00 Noon 7/27 - 9:00 P.M. 7/30 - Inner and Outer Ayakulik Sections south of 57°13'09" N. Lat. - start by flare
28	10:00 A.M. 7/30/92	9:00 P.M. 7/30/92	**Extension** for 72 hours 9:00 P.M. 7/30 - 9:00 P.M. 8/02 - Duck Bay, Izhut Bay and Kitoi Bay Sections - Inner and Outer Ayakulik Sections - Halibut Bay Section
29	11:30 A.M. 8/01/92	9:00 P.M. 8/02/92	**Extension** for 48 hours 9:00 P.M. 8/02 - 9:00 P.M. 8/04 - Duck Bay, Izhut Bay and Kitoi Bay Sections
		12:00 Noon 8/03/92	**Opening** for 57 hours 12:00 Noon 8/03 - 9:00 P.M. 8/05 - Remainder of Afognak District - Northwest Kodiak District **except** for Terror Bay, Inner Uganik Bay and Zachar Bay Sections - Outer Karluk Section

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Table 4. (page 8 of 10)

E.O. No.	Time/Date Issued	Time/Date Effective	Action Taken
29 (continued)			- Northeast Kodiak District
			- Eastside Kodiak District
			- Mainland District **except** for Wide Bay, Hallo Bay and Big River Sections
30	12:00 Noon 8/04/92	9:00 P.M. 8/04/92	**Extension** for 72 hours 9:00 P.M. 8/04 - 9:00 P.M. 8/07
			- Duck Bay, Izhut Bay and Kitoi Bay Sections
31	1:00 P.M. 8/06/92	9:00 P.M. 8/07/92	**Extension** for 48 hours 9:00 P.M. 8/07 - 9:00 P.M. 8/09
			- Duck Bay, Izhut Bay and Kitoi Bay Sections
32	1:00 P.M. 8/08/92	12:00 Noon 8/10/92	**Opening** for 57 hours 12:00 Noon 8/10 - 9:00 P.M. 8/12
			- Afognak District **except** for Perenosa Bay, Duck Bay, Izhut Bay and Kitoi Bay Sections
			- Northwest Kodiak District **except** for the Terror Bay, Inner Uganik Bay and Zachar Bay Sections
			- Eastside Kodiak District **except** for Inner and Outer Ugak Sections
33	5:00 P.M. 8/18/92	12:00 Noon 8/20/92	**Opening** for 9 hours 12:00 Noon 8/20 - 9:00 P.M. 8/20
			- Inner Akalura Section
34	3:30 P.M. 8/20/92	12:00 Noon 8/22/92	**Opening** for 54 hours 12:00 Noon 8/22 - 6:00 P.M. 8/24
			- Cape Alitak and Moser-Olga Bay Sections
35	4:00 P.M. 8/21/92	6:00 P.M. 8/24/92	**Extension** for 72 hours 6:00 P.M. 8/24 - 6:00 P.M. 8/27
			- Cape Alitak and Moser-Olga Bay Sections
		12:00 Noon 8/25/92	**Opening** for 54 hours 12:00 Noon 8/25 - 6:00 P.M. 8/27
			- Afognak District **except** for Duck Bay, Izhut Bay and Kitoi Bay Sections.
			- Northwest Kodiak District **except** for Kizhuyak and Inner Uganik Bay Sections
			- Seven Rivers Section
			- Mainland District **except** for Inner and Outer Kukak and Dakavak Bay Sections

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Table 4. (page 9 of 10)

E.O. No.	Time/Date Issued	Time/Date Effective	Action Taken
36	3:45 P.M. 8/26/92	6:00 P.M. 8/27/92	**Extension** for 120 hours 6:00 P.M. 8/27 - 6:00 P.M. 9/01/92 - Cape Alitak and Moser-Olga Bay Sections - Southwest Afognak Section - Northwest Kodiak District **except** for the Kizhuyak Bay and Inner Uganik Bay Sections - Mainland District **except** for Inner and Outer Kukak and Dakavak Bay Sections
		12:00 Noon 8/28/92	**Opening** for 102 hours 12:00 Noon 8/28 - 6:00 P.M. 9/01 - Halibut Bay Section
37	12:00 Noon 8/31/92	6:00 P.M. 9/01/92	**Extension** for 72 hours 6:00 P.M. 9/01 - 6:00 P.M. 9/04 - Cape Alitak and Moser-Olga Bay Sections - Southwest Afognak Section - Northwest Kodiak District **except** for Kizhuyak and Inner Uganik Bay Sections - Halibut Bay Section - Mainland District **except** for Inner and Outer Kukak and Dakavak Bay Sections
		12:00 Noon 9/02/92	**Opening** for 54 hours 12:00 Noon 9/02 - 6:00 P.M. 9/04 - Remainder of Afognak District **except** for Raspberry Strait, Izhut Bay and Kitoi Bay Sections - Eastside Kodiak District **except** for Outer Ugak Bay Section. - Inner and Outer Ayakulik Sections
38	4:45 P.M. 9/03/92	6:00 P.M. 9/04/92	**Extension** for 72 hours 6:00 P.M. 9/04 - 6:00 P.M. 9/07 - Cape Alitak and Moser-Olga Bay Sections - Southwest and Southeast Afognak Sections - Northwest Kodiak District **except** for Kizhuyak bay and Inner Uganik Bay Sections - Inner and Outer Ayakulik Sections - Halibut Bay Section - Mainland District **except** for Inner and Outer Kukak and Dakavak Bay Sections

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Table 4. (page 10 of 10)

E.O. No.	Time/Date Issued	Time/Date Effective	Action Taken
39	10:00 A.M. 9/06/92	6:00 P.M. 9/07/92	**Extension** for 72 hours 6:00 P.M. 9/07 - 6:00 P.M. 9/10 - Cape Alitak and Moser-Olga Bay Sections - Southwest and Southeast Afognak Sections - Northwest Kodiak District **except** for Kizhuyak Bay and Inner Uganik Bay Sections - Inner and Outer Ayakulik Sections - Halibut Bay Section - Mainland District **except** for Inner and Outer Kukak and Dakavak Bay Sections
40	11:00 A.M. 9/09/92	6:00 P.M. 9/10/92	**Extension** until further notice 6:00 P.M. 9/10 - 12:00 Midnight 10/31 - Cape Alitak and Moser-Olga Bay Section - Southwest and Southeast Afognak Sections - Northwest Kodiak District **except** for Kizhuyak Bay and Inner Uganik Bay Sections - Inner and Outer Ayakulik Bay Sections - Halibut Bay Section - Mainland District **except** for Inner and Outer Kukak and Dakavak Bay Sections
		12:00 Noon 9/11/92	**Opening** for 54 hours 12:00 Noon 9/11 - 6:00 P.M. 9/13 - Northwest Afognak, Perenosa Bay, Northeast Afognak and Duck Bay Sections - Eastside Kodiak District **except** for Inner and Outer Ugak Bay Sections - Humpy-Deadman Section - Sturgeon Section - Inner and Outer Karluk Sections - Dakavak Bay Section
41	10:00 A.M. 9/12/92	6:00 P.M. 9/13/92	**Extension** until further notice 6:00 P.M. 9/13 - 12:00 Midnight 10/31 - Northwest Afognak, Perenosa Bay, Northeast Afognak and Duck Bay Sections - Eastside Kodiak District **except** for the Inner and Outer Ugak Bay Sections - Humpy-Deadman Section - Dakavak Bay Section

Table 5. Commercial salmon harvest by management unit and statistical week all gear combined for the Kodiak Management Area, 1992.

SECTION (STAT. AREA)	STAT WEEK	WEEK END	CHINOOK #	CHINOOK LBS.	CHINOOK AVG.	SOCKEYE #	SOCKEYE LBS.	SOCKEYE AVG.	COHO #	COHO LBS.	COHO AVG.	PINK #	PINK LBS.	PINK AVG.	CHUM #	CHUM LBS.	CHUM AVG.
S.W.AFOGNAK & RASPBERRY	25	06/20	305	1742	5.7	5997	25489	4.3	4	18	4.5	90	299	3.3	544	4014	7.4
(COMBINED)	26	06/27	318	2846	8.9	2673	11827	4.4	0	0	0.0	186	638	3.4	208	1549	7.4
(251-10, 20)	27	07/04	485	5004	10.3	17278	79262	4.6	36	227	6.3	8900	32560	3.7	3108	26060	8.4
	28	07/11	303	3843	12.7	23821	134408	5.6	106	718	6.8	12405	48643	3.9	3900	30121	7.7
	29	07/18	51	731	14.3	28680	189661	6.6	323	2321	7.2	11715	45176	3.9	2291	16826	7.3
	30	07/25	13	134	10.3	1650	9643	5.8	176	1299	7.4	8610	35891	4.2	1362	10789	7.9
	31	08/01	561	8462	15.1	1123	6429	5.7	2335	17030	7.3	14834	54708	3.7	959	7281	7.6
	32	08/08	66	1048	15.9	733	4060	5.5	1114	8383	7.5	19597	62891	3.2	1875	13142	7.0
	33	08/15	167	2652	15.9	4947	25973	5.3	2882	22729	7.9	48496	173777	3.6	1900	13638	7.2
	35	08/29	61	782	12.8	11852	58945	5.0	8000	70709	8.8	10443	38832	3.7	827	5461	6.6
	36	09/05	33	565	17.1	4058	20630	5.1	2182	20387	9.3	1526	5513	3.6	142	831	5.9
	37	09/12	17	257	15.1	8094	41357	5.1	1736	16446	9.5	210	738	3.5	69	481	7.0
	38	09/19	12	147	12.3	3557	17777	5.0	959	8394	8.8	14	49	3.5	29	183	6.3
	39	09/26	0	0	0.0	49	229	4.7	3	32	10.7	0	0	0.0	0	0	0.0
TOTAL			2392	28213	11.8	114512	625690	5.5	19856	168693	8.5	137026	499715	3.6	17214	130376	7.6
N.W.AFOGNAK	25	06/20	2	31	15.5	5508	21958	4.0	0	0	0.0	0	0	0.0	74	473	6.4
(251-30, 40, 50)	26	06/27	4	27	6.8	1451	6261	4.3	0	0	0.0	3	15	5.0	1	9	9.0
	28	07/11	16	232	14.5	8367	49390	5.9	52	346	6.7	4874	17935	3.7	1035	8063	7.8
	29	07/18	1	7	7.0	891	4998	5.6	12	91	7.6	1820	7155	3.9	229	2075	9.1
	30	07/25	4	92	23.0	676	4604	6.8	108	825	7.6	2563	8879	3.5	1004	6037	6.0
	31	08/01	11	156	14.2	434	2039	4.7	226	1779	7.9	9862	34461	3.5	968	7026	7.3
	32	08/08	4	75	18.8	126	701	5.6	517	4412	8.5	8347	28118	3.4	421	3131	7.4
	33	08/15	15	311	20.7	632	3405	5.4	1274	10126	7.9	23925	85952	3.6	585	4031	6.9
	35	08/29	2	50	25.0	2520	12631	5.0	4067	38440	9.5	3039	11447	3.8	118	877	7.4
	36	09/05	0	0	0.0	8	40	5.0	268	2118	7.9	0	0	0.0	0	0	0.0
TOTAL			59	981	16.6	20613	106027	5.1	6524	58137	8.9	54433	193962	3.6	4435	31722	7.2
SHUYAK	29	07/18	0	0	0.0	226	1268	5.6	9	86	9.6	220	780	3.5	240	1944	8.1
(251-60, 70, 81)	30	07/25	0	0	0.0	33	199	6.0	7	78	11.1	202	796	3.9	94	560	6.0
	33	08/15	24	270	11.3	120	603	5.0	1851	15130	8.2	4837	17191	3.6	375	1986	5.3
	35	08/29	0	0	0.0	199	964	4.8	6146	47947	7.8	212	734	3.5	11	70	6.4
	36	09/05	0	0	0.0	122	612	5.0	1972	15586	7.9	0	0	0.0	3	24	8.0
TOTAL			24	270	11.3	700	3646	5.2	9985	78827	7.9	5471	19501	3.6	723	4584	6.3
PERENOSA	32	08/08	0	0	0.0	0	0	0.0	16	132	8.3	2324	9181	4.0	0	0	0.0
(251-82,83)	35	08/29	0	0	0.0	4	13	3.3	320	2751	8.6	25	90	3.6	0	0	0.0
TOTAL			0	0	0.0	4	13	3.3	336	2883	8.6	2349	9271	3.9	0	0	0.0

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Table 5. (page 2 of 8)

SECTION (STAT. AREA)	STAT WEEK	WEEK END	CHINOOK #	CHINOOK LBS.	CHINOOK AVG.	SOCKEYE #	SOCKEYE LBS.	SOCKEYE AVG.	COHO #	COHO LBS.	COHO AVG.	PINK #	PINK LBS.	PINK AVG.	CHUM #	CHUM LBS.	CHUM AVG.
N.E.AFOGNAK	28	07/11	133	1330	10.0	2694	15606	5.8	353	1785	5.1	2084	7338	3.5	1246	7163	5.7
(251-90,252-10,20)	29	07/18	65	394	6.1	4007	24351	6.1	350	2788	8.0	7698	26566	3.5	7642	40963	5.4
	30	07/25	1	16	16.0	661	4361	6.6	277	1893	6.8	2353	8359	3.6	1031	7275	7.1
	31	08/01	1	5	5.0	128	402	3.1	82	470	5.7	2021	7196	3.6	246	1278	5.2
	32	08/08	0	0	0.0	11	46	4.2	3	22	7.3	2683	9565	3.6	4	14	3.5
	33	08/15	33	401	12.2	183	953	5.2	220	1814	8.2	15389	52806	3.4	188	1323	7.0
TOTAL			233	2146	9.2	7684	45719	5.9	1285	8772	6.8	32228	111830	3.5	10357	58016	5.6
IZHUT	29	07/18	7	80	11.4	1368	6840	5.0	85	510	6.0	969	2910	3.0	223	1340	6.0
(252-30)	30	07/25	2	75	37.5	44	280	6.4	0	0	0.0	182	637	3.5	16	120	7.5
	31	08/01	11	275	25.0	2692	16591	6.2	366	2509	6.9	26603	94948	3.6	914	5904	6.5
	32	08/08	2	16	8.0	500	2519	5.0	705	4707	6.7	139732	470336	3.4	483	3075	6.4
	33	08/15	8	146	18.3	77	374	4.9	144	1066	7.4	37965	133958	3.5	67	502	7.5
TOTAL			30	592	19.7	4681	26604	5.7	1300	8792	6.8	205451	702789	3.4	1703	10941	6.4
KITOI BAY	31	08/01	0	0	0.0	507	2335	4.6	78	513	6.6	64848	218182	3.4	999	4852	4.9
(252-32)	32	08/08	8	183	22.9	323	1606	5.0	288	2258	7.8	114075	404304	3.5	467	3173	6.8
	33	08/15	0	0	0.0	34	153	4.5	22	172	7.8	16218	61772	3.8	10	41	4.1
TOTAL			8	183	22.9	864	4094	4.7	388	2943	7.6	195141	684258	3.5	1476	8066	5.5
DUCK BAY	26	06/27	25	73	2.9	810	4081	5.0	0	0	0.0	100	410	4.1	86	652	7.6
(252-31)	28	07/11	142	1737	12.2	4098	17978	4.4	267	1977	7.4	1456	5133	3.5	1166	8196	7.0
	29	07/18	4	21	5.3	2684	15912	5.9	311	2286	7.4	4083	12781	3.1	514	3898	7.6
	30	07/25	14	122	8.7	9620	58188	6.0	1259	8959	7.1	22791	77727	3.4	1823	13057	7.2
	31	08/01	16	430	26.9	1215	6783	5.6	1277	8819	6.9	80447	293248	3.6	1210	8355	6.9
	32	08/08	53	1080	20.4	1336	6765	5.1	2437	17805	7.3	281695	1000350	3.6	1852	12426	6.7
	33	08/15	2	63	31.5	89	455	5.1	329	2452	7.5	52177	179082	3.4	35	216	6.2
	37	09/12	1	29	29.0	10	63	6.3	13	136	10.5	2054	7910	3.9	3	21	7.0
	38	09/19	0	0	0.0	0	0	0.0	100	1405	14.1	0	0	0.0	0	0	0.0
TOTAL			257	3555	13.8	19862	110225	5.5	5993	43839	7.3	444803	1576641	3.5	6689	46821	7.0
S.E.AFOGNAK	25	06/20	0	0	0.0	347	1305	3.8	0	0	0.0	1	3	3.0	1	4	4.0
(252-33, 34, 35)	28	07/11	5	99	19.8	1630	8074	5.0	47	338	7.2	774	2904	3.8	85	540	6.4
	29	07/18	13	169	13.0	6707	44503	6.6	597	4342	7.3	5301	18849	3.6	494	3223	6.5
	30	07/25	5	50	10.0	3303	21191	6.4	580	4020	6.9	5462	17910	3.3	346	2485	7.2
	31	08/01	4	66	16.5	405	1913	4.7	487	2862	5.9	7487	27641	3.7	173	1244	7.2
	32	08/08	0	0	0.0	42	238	5.7	29	196	6.8	3546	13615	3.8	16	112	7.0
	33	08/15	0	0	0.0	36	158	4.4	164	1401	8.5	1662	6021	3.6	27	208	7.7
	35	08/29	0	0	0.0	8	38	4.8	34	298	8.8	35	140	4.0	0	0	0.0
	36	09/05	0	0	0.0	17	83	4.9	36	335	9.3	0	0	0.0	0	0	0.0
	41	10/10	0	0	0.0	0	0	0.0	77	935	12.1	0	0	0.0	0	0	0.0
TOTAL			27	384	14.2	12495	77503	6.2	2051	14727	7.2	24268	87083	3.6	1142	7816	6.8

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Table 5. (page 3 of 8)

SECTION (STAT. AREA)	STAT WEEK	WEEK END	CHINOOK #	CHINOOK LBS.	CHINOOK AVG.	SOCKEYE #	SOCKEYE LBS.	SOCKEYE AVG.	COHO #	COHO LBS.	COHO AVG.	PINK #	PINK LBS.	PINK AVG.	CHUM #	CHUM LBS.	CHUM AVG.
CENTRAL, TERROR BAY,	24	06/13	370	4122	11.1	44411	214456	4.8	1	6	6.0	72	241	3.3	2026	12859	6.3
INNER UGANIK, SPIRIDON,	25	06/20	650	6985	10.7	48555	237212	4.9	7	50	7.1	313	1102	3.5	4028	27179	6.7
ZACHAR, & UYAK COMBINED	26	06/27	1020	11280	11.1	68921	336079	4.9	29	205	7.1	5176	20014	3.9	15123	109649	7.3
(253-11, 12, 13, 14,31,	27	07/04	903	9491	10.5	141484	702898	5.0	175	1155	6.6	32996	130119	3.9	35466	255554	7.2
32, 33, 35, 25410, 20	28	07/11	317	3976	12.5	75859	425578	5.6	582	3786	6.5	47555	190133	4.0	19126	141325	7.4
30, 40)	29	07/18	293	3789	12.9	84678	545658	6.4	1898	12954	6.8	80795	319560	4.0	27991	221317	7.9
	30	07/25	400	5226	13.1	106899	684452	6.4	4322	30753	7.1	207506	811752	3.9	36541	283969	7.8
	31	08/01	663	9788	14.8	17417	102934	5.9	5063	38904	7.7	145931	576408	3.9	23950	187475	7.8
	32	08/08	1011	14072	13.9	20483	111017	5.4	5472	41827	7.6	158049	617149	3.9	23452	179301	7.6
	33	08/15	1228	17196	14.0	32702	173153	5.3	13541	112733	8.3	190331	734181	3.9	14108	103304	7.3
	35	08/29	616	8116	13.2	150733	769888	5.1	26792	246820	9.2	57645	228583	4.0	5482	37137	6.8
	36	09/05	316	4609	14.6	100437	511872	5.1	18763	175889	9.4	21511	84835	3.9	2773	19011	6.9
	37	09/12	277	3795	13.7	51590	263773	5.1	7159	67835	9.5	273	984	3.6	711	4749	6.7
	38	09/19	114	1748	15.3	32661	160723	4.9	3160	28921	9.2	57	207	3.6	309	2043	6.6
	39	09/26	20	200	10.0	2824	14590	5.2	259	2410	9.3	0	0	0.0	41	266	6.5
TOTAL			8198	104393	12.7	979654	5254283	5.4	87223	764248	8.8	948210	3715268	3.9	211127	1585138	7.5
NORTH CAPE, ANTON	24	06/13	5	68	13.6	376	1875	5.0	0	0	0.0	1	5	5.0	2	10	5.0
LARSEN, SHERATIN, &	25	06/20	0	0	0.0	817	4015	4.9	0	0	0.0	6	40	6.7	30	225	7.5
KIZHUYAK COMBINED	26	06/27	38	380	10.0	7540	36454	4.8	6	33	5.5	946	3314	3.5	888	5733	6.5
(259-36, 37, 38, 39)	27	07/04	105	514	4.9	8768	44729	5.1	24	168	7.0	4883	19317	4.0	1385	9156	6.6
	28	07/11	0	0	0.0	2875	16788	5.8	93	537	5.8	3482	13693	3.9	398	2804	7.0
	29	07/18	39	555	14.2	7863	52847	6.7	624	3901	6.3	7831	30659	3.9	1442	9988	6.9
	30	07/25	10	129	12.9	7665	47560	6.2	962	6348	6.6	14176	52839	3.7	1549	11236	7.3
	31	08/01	55	754	13.7	2813	16071	5.7	2450	16597	6.8	34248	127096	3.7	3585	24759	6.9
	32	08/08	17	320	18.8	684	4048	5.9	744	5351	7.2	20392	75904	3.7	3084	25148	8.2
	33	08/15	24	233	9.7	408	2160	5.3	557	4302	7.7	8220	31063	3.8	1476	11410	7.7
	35	08/29	0	0	0.0	91	471	5.2	438	3940	9.0	666	2655	4.0	193	1380	7.2
	36	09/05	0	0	0.0	53	311	5.9	1007	8802	8.7	138	514	3.7	581	4576	7.9
	37	09/12	0	0	0.0	263	1349	5.1	1203	11544	9.6	29	112	3.9	132	866	6.6
	38	09/19	0	0	0.0	88	447	5.1	388	3720	9.6	0	0	0.0	26	159	6.1
TOTAL			293	2953	10.1	40304	229125	5.7	8496	65243	7.7	95018	357211	3.8	14771	107450	7.3
OUTER KARLUK	26	06/27	141	1691	12.0	20100	90796	4.5	5	39	7.8	689	2729	4.0	2715	19556	7.2
(255-20)	27	07/04	60	715	11.9	11722	55652	4.7	5	34	6.8	298	1123	3.8	1422	9992	7.0
	28	07/11	6	145	24.2	3380	16651	4.9	0	0	0.0	525	2174	4.1	452	2837	6.3
	31	08/01	53	723	13.6	4594	24614	5.4	327	2832	8.7	11863	46790	3.9	128	799	6.2
	32	08/08	56	1098	19.6	6247	31777	5.1	374	2833	7.6	15637	64428	4.1	1133	6455	5.7
	37	09/12	0	0	0.0	519	2313	4.5	81	778	9.6	0	0	0.0	0	0	0.0
	38	09/19	0	0	0.0	58	263	4.5	4	38	9.5	0	0	0.0	0	0	0.0
TOTAL			316	4372	13.8	46620	222066	4.8	796	6554	8.2	29012	117244	4.0	5850	39639	6.8

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Table 5. (page 4 of 8)

SECTION (STAT. AREA)	STAT WEEK	WEEK END	CHINOOK #	CHINOOK LBS.	CHINOOK AVG.	SOCKEYE #	SOCKEYE LBS.	SOCKEYE AVG.	COHO #	COHO LBS.	COHO AVG.	PINK #	PINK LBS.	PINK AVG.	CHUM #	CHUM LBS.	CHUM AVG.
INNER KARLUK	26	06/27	7	104	14.9	861	4261	4.9	0	0	0.0	10	37	3.7	122	853	7.0
(255-10)	27	07/04	49	772	15.8	6688	29094	4.4	1	7	7.0	275	950	3.5	845	5049	6.0
	28	07/11	1	31	31.0	557	2491	4.5	0	0	0.0	192	810	4.2	33	172	5.2
	31	08/01	60	853	14.2	4259	21908	5.1	154	1276	8.3	11506	45851	4.0	193	1467	7.6
	37	09/12	10	114	11.4	2464	11301	4.6	684	6678	9.8	0	0	0.0	89	653	7.3
	38	09/19	6	90	15.0	657	3205	4.9	157	1692	10.8	0	0	0.0	3	25	8.3
TOTAL			133	1964	14.8	15486	72260	4.7	996	9653	9.7	11983	47648	4.0	1285	8219	6.4
STURGEON	26	06/27	12	107	8.9	1380	6900	5.0	1	7	7.0	32	97	3.0	135	945	7.0
(256-40)	27	07/04	25	348	13.9	3415	15122	4.4	1	7	7.0	11	33	3.0	258	1701	6.6
	28	07/11	2	90	45.0	5352	29073	5.4	1	6	6.0	576	2863	5.0	481	3385	7.0
	31	08/01	0	0	0.0	1120	6747	6.0	124	836	6.7	1357	4850	3.6	275	1861	6.8
TOTAL			39	545	14.0	11267	57842	5.1	127	856	6.7	1976	7843	4.0	1149	7892	6.9
HALIBUT BAY	25	06/20	39	721	18.5	6998	32379	4.6	0	0	0.0	0	0	0.0	63	523	8.3
(256-25, 30)	26	06/27	66	704	10.7	25259	120357	4.8	4	34	8.5	134	495	3.7	876	6779	7.7
	27	07/04	32	458	14.3	9029	45568	5.0	37	239	6.5	3134	10012	3.2	1755	12049	6.9
	28	07/11	203	2895	14.3	255537	1556670	6.1	272	1910	7.0	40219	148675	3.7	20719	155671	7.5
	29	07/18	97	1581	16.3	111145	701411	6.3	228	1644	7.2	32352	123380	3.8	4469	32444	7.3
	30	07/25	0	0	0.0	424	2219	5.2	1	7	7.0	419	1601	3.8	0	0	0.0
	31	08/01	155	2912	18.8	41453	218934	5.3	1234	8833	7.2	62488	239828	3.8	1249	8614	6.9
	32	08/08	7	78	11.1	6577	36407	5.5	219	1592	7.3	20022	65001	3.2	62	410	6.6
	35	08/29	13	230	17.7	3709	19011	5.1	683	6822	10.0	1441	5525	3.8	73	490	6.7
	36	09/05	80	1564	19.6	17929	88745	4.9	3252	31248	9.6	4536	17513	3.9	303	1976	6.5
	37	09/12	141	1964	13.9	3516	18608	5.3	743	7320	9.9	490	1702	3.5	156	1010	6.5
	39	09/26	17	304	17.9	100	540	5.4	6	56	9.3	0	0	0.0	0	0	0.0
TOTAL			850	13411	15.8	481676	2840849	5.9	6679	59705	8.9	165235	613732	3.7	29725	219966	7.4
INNER & OUTER AYAKULIK	24	06/13	4	115	28.8	97	397	4.1	0	0	0.0	0	0	0.0	1	8	8.0
(256-10, 20)	25	06/20	3866	77249	20.0	247632	1152490	4.7	4	28	7.0	650	1769	2.7	6435	51034	7.9
	26	06/27	955	13006	13.6	119235	567256	4.8	7	71	10.1	597	1796	3.0	3832	31874	8.3
	27	07/04	2	31	15.5	90	400	4.4	3	22	7.3	426	1325	3.1	10	63	6.3
	28	07/11	79	1212	15.3	178026	1132725	6.4	163	1135	7.0	25091	94541	3.8	8960	68848	7.7
	29	07/18	49	790	16.1	21564	146030	6.8	251	1742	6.9	3401	13649	4.0	1386	10156	7.3
	30	07/25	20	218	10.9	622	3046	4.9	0	0	0.0	36	125	3.5	33	281	8.5
	31	08/01	34	637	18.7	45070	236173	5.2	278	2290	8.2	100871	395880	3.9	623	4235	6.8
	32	08/08	7	172	24.6	3633	18662	5.1	43	327	7.6	18052	71253	3.9	259	1917	7.4
	35	08/29	1	12	12.0	232	1095	4.7	60	510	8.5	181	580	3.2	9	85	9.4
	36	09/05	0	0	0.0	513	2460	4.8	3408	33659	9.9	397	1367	3.4	21	167	8.0
	37	09/12	0	0	0.0	386	1881	4.9	346	3792	11.0	0	0	0.0	14	108	7.7
TOTAL			5017	93442	18.6	617100	3262615	5.3	4563	43576	9.5	149702	582285	3.9	21583	168776	7.8

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Table 5. (page 5 of 8)

SECTION (STAT. AREA)	STAT WEEK	WEEK END	CHINOOK #	CHINOOK LBS.	CHINOOK AVG.	SOCKEYE #	SOCKEYE LBS.	SOCKEYE AVG.	COHO #	COHO LBS.	COHO AVG.	PINK #	PINK LBS.	PINK AVG.	CHUM #	CHUM LBS.	CHUM AVG.
CAPE ALITAK	24	06/13	183	3819	20.9	4914	23542	4.8	1	8	8.0	0	0	0.0	108	1125	10.4
(257-10, 20)	25	06/20	263	4560	17.3	24121	111587	4.6	1	6	6.0	46	142	3.1	941	8840	9.4
	26	06/27	122	2027	16.6	34418	163705	4.8	0	0	0.0	123	399	3.2	2269	19864	8.8
	27	07/04	27	427	15.8	14314	69840	4.9	1	5	5.0	124	489	3.9	1058	8597	8.1
	28	07/11	57	1133	19.9	30907	153348	5.0	6	47	7.8	978	3470	3.5	4391	35537	8.1
	29	07/18	51	911	17.9	29166	188926	6.5	282	2126	7.5	5056	19587	3.9	4988	37266	7.5
	30	07/25	46	948	20.6	49231	290635	5.9	349	2516	7.2	16243	61878	3.8	1980	14357	7.3
	31	08/01	84	1833	21.8	15061	76005	5.0	213	1803	8.5	15125	59694	3.9	853	6349	7.4
	34	08/22	5	92	18.4	518	2686	5.2	94	920	9.8	153	531	3.5	17	125	7.4
	35	08/29	66	1479	22.4	15816	81224	5.1	6556	63758	9.7	3486	12136	3.5	752	5785	7.7
	36	09/05	23	423	18.4	3698	18981	5.1	2391	23981	10.0	334	1113	3.3	261	1853	7.1
	37	09/12	1	20	20.0	319	1759	5.5	276	2814	10.2	0	0	0.0	42	334	8.0
TOTAL			928	17672	19.0	222483	1182238	5.3	10170	97984	9.6	41668	159439	3.8	17660	140032	7.9
MOSER/OLGA BAY &	22	05/30	0	0	0.0	6	36	6.0	0	0	0.0	0	0	0.0	0	0	0.0
DOG SALMON FLATS	23	06/06	0	0	0.0	64	301	4.7	0	0	0.0	0	0	0.0	0	0	0.0
(257-40, 41)	24	06/13	16	357	22.3	12225	58810	4.8	0	0	0.0	1	3	3.0	127	1087	8.6
	25	06/20	34	671	19.7	41149	195774	4.8	1	5	5.0	12	47	3.9	1061	9446	8.9
	26	06/27	11	188	17.1	19565	94174	4.8	3	20	6.7	33	126	3.8	793	6989	8.8
	27	07/04	9	228	25.3	38583	192888	5.0	8	65	8.1	168	650	3.9	2294	18842	8.2
	28	07/11	9	144	16.0	18329	97912	5.3	9	64	7.1	513	2064	4.0	2357	19397	8.2
	29	07/18	4	87	21.8	26813	148621	5.5	119	754	6.3	1107	4960	4.5	1448	10880	7.5
	30	07/25	4	91	22.8	46228	269457	5.8	66	519	7.9	3598	14787	4.1	1100	8191	7.4
	31	08/01	4	70	17.5	21915	118375	5.4	94	740	7.9	7727	31775	4.1	549	4334	7.9
	34	08/22	0	0	0.0	4557	23732	5.2	901	9108	10.1	510	2148	4.2	333	2962	8.9
	35	08/29	1	8	8.0	18976	100797	5.3	6118	61940	10.1	1888	7262	3.8	2854	24070	8.4
	36	09/05	0	0	0.0	14251	76801	5.4	4793	47748	10.0	266	1039	3.9	1519	11482	7.6
	37	09/12	0	0	0.0	7203	38040	5.3	1575	15848	10.1	65	248	3.8	947	7199	7.6
	38	09/19	0	0	0.0	1788	9742	5.4	432	3478	8.1	0	0	0.0	115	851	7.4
	39	09/26	0	0	0.0	487	2759	5.7	159	1169	7.4	0	0	0.0	38	259	6.8
TOTAL			92	1844	20.0	272139	1428219	5.2	14278	141458	9.9	15888	65109	4.1	15535	125989	8.1
INNER & OUTER AKALURA	34	08/22	0	0	0.0	9263	47882	5.2	69	480	7.0	587	2458	4.2	44	182	4.1
(257-30) TOTAL			0	0	0.0	9263	47882	5.2	69	480	7.0	587	2458	4.2	44	182	4.1
HUMPY/DEADMAN	24	06/13	9	206	22.9	164	857	5.2	0	0	0.0	0	0	0.0	6	62	10.3
(257-50, 60, 70)	25	06/20	9	196	21.8	3590	16695	4.7	0	0	0.0	9	28	3.1	222	2359	10.6
	26	06/27	14	281	20.1	4778	21875	4.6	0	0	0.0	9	33	3.7	396	3688	9.3
	27	07/04	0	0	0.0	2080	10289	4.9	1	10	10.0	35	128	3.7	366	3216	8.8
	28	07/11	4	71	17.8	5997	38187	6.4	5	35	7.0	656	2434	3.7	298	2466	8.3
	29	07/18	0	0	0.0	5774	40109	6.9	13	87	6.7	421	1764	4.2	70	523	7.5
	35	08/29	0	0	0.0	5	26	5.2	12	130	10.8	0	0	0.0	2	16	8.0
TOTAL			36	754	20.9	22388	128038	5.7	31	262	8.5	1130	4387	3.9	1360	12330	9.1

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Table 5. (page 6 of 8)

SECTION (STAT. AREA)	STAT WEEK	WEEK END	CHINOOK #	CHINOOK LBS.	CHINOOK AVG.	SOCKEYE #	SOCKEYE LBS.	SOCKEYE AVG.	COHO #	COHO LBS.	COHO AVG.	PINK #	PINK LBS.	PINK AVG.	CHUM #	CHUM LBS.	CHUM AVG.
SEVEN RIVERS	26	06/27	6	35	5.8	360	1760	4.9	0	0	0.0	58	150	2.6	355	3454	9.7
(258-70,80,83,85,90)	29	07/18	12	153	12.8	8360	55891	6.7	231	1489	6.4	702	2817	4.0	2196	17024	7.8
	30	07/25	0	0	0.0	16	93	5.8	0	0	0.0	11	45	4.1	1085	6751	6.2
	31	08/01	1	12	12.0	681	3079	4.5	1	10	10.0	563	2250	4.0	2652	15415	5.8
	32	08/08	0	0	0.0	6	22	3.7	3	27	9.0	10600	40192	3.8	290	2108	7.3
	33	08/15	2	6	3.0	180	862	4.8	64	555	8.7	19908	72315	3.6	439	3060	7.0
TOTAL			21	206	9.8	9603	61707	6.4	299	2081	7.0	31842	117769	3.7	7017	47812	6.8
TWO HEADED	26	06/27	0	0	0.0	372	1951	5.2	0	0	0.0	72	229	3.2	660	5729	8.7
(258-54, 55, 60)	28	07/11	0	0	0.0	480	2925	6.1	5	37	7.4	117	482	4.1	105	789	7.5
	29	07/18	106	1901	17.9	27581	185231	6.7	625	3926	6.3	2994	11738	3.9	2286	12805	5.6
	30	07/25	73	1366	18.7	16117	96418	6.0	2236	15062	6.7	21765	84836	3.9	2206	16303	7.4
	31	08/01	40	726	18.2	5862	30125	5.1	3593	23889	6.6	35841	135208	3.8	1424	9946	7.0
	32	08/08	24	526	21.9	1228	6801	5.5	1715	11611	6.8	22176	84533	3.8	996	7512	7.5
	33	08/15	1	25	25.0	63	312	5.0	64	446	7.0	5542	20272	3.7	311	2035	6.5
TOTAL			244	4544	18.6	51703	323763	6.3	8238	54971	6.7	88507	337298	3.8	7988	55119	6.9
SITKALIDAK	25	06/20	0	0	0.0	243	1133	4.7	0	0	0.0	18	46	2.6	10	72	7.2
(258-10, 20, 30, 40,	26	06/27	15	172	11.5	7578	39685	5.2	3	22	7.3	505	1345	2.7	1899	13767	7.2
51, 52, 53)	27	07/04	2	20	10.0	285	1500	5.3	0	0	0.0	2846	9110	3.2	0	0	0.0
	28	07/11	173	2172	12.6	67311	450120	6.7	1759	10730	6.1	10158	38535	3.8	27945	180612	6.5
	29	07/18	425	4808	11.3	318096	1995152	6.3	14088	92997	6.6	80625	302209	3.7	86632	543431	6.3
	30	07/25	214	2873	13.4	44235	269852	6.1	11609	76724	6.6	60958	225009	3.7	10697	77446	7.2
	31	08/01	114	2470	21.7	6687	33565	5.0	2028	13543	6.7	47920	185462	3.9	4174	33527	8.0
	32	08/08	458	7368	16.1	3222	16027	5.0	2424	16705	6.9	75052	291779	3.9	8391	65652	7.8
	33	08/15	105	2861	27.2	1295	6877	5.3	1488	12609	8.5	82537	323645	3.9	10562	83251	7.9
	36	09/05	2	80	40.0	247	1267	5.1	7646	77398	10.1	396	1555	3.9	2961	22815	7.7
	38	09/19	0	0	0.0	52	214	4.1	2724	24559	9.0	0	0	0.0	715	5043	7.1
	39	09/26	0	0	0.0	3	12	4.0	940	8865	9.4	0	0	0.0	16	102	6.4
TOTAL			1508	22824	15.1	449254	2815404	6.3	44709	334152	7.5	361015	1378695	3.8	154002	1025718	6.7
INNER & OUTER UGAK	26	06/27	1	18	18.0	105	527	5.0	0	0	0.0	0	0	0.0	0	0	0.0
(259-40, 41, 42)	28	07/11	34	604	17.8	4822	24360	5.1	0	0	0.0	152	550	3.6	117	1041	8.9
	29	07/18	87	1377	15.8	36589	233327	6.4	1467	10568	7.2	10085	38427	3.8	7445	54194	7.3
	30	07/25	441	7149	16.2	31633	196894	6.2	4899	35579	7.3	30224	113656	3.8	4798	35369	7.4
	31	08/01	0	0	0.0	8	44	5.5	8	50	6.3	775	2784	3.6	450	3482	7.7
	32	08/08	24	593	24.7	395	2301	5.8	0	0	0.0	974	3948	4.1	2289	20418	8.9
	36	09/05	0	0	0.0	15	77	5.1	318	2680	8.4	4	13	3.3	244	1826	7.5
TOTAL			587	9741	16.6	73567	457530	6.2	6692	48877	7.3	42214	159378	3.8	15343	116330	7.6

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Table 5. (page 7 of 8)

SECTION (STAT. AREA)	STAT WEEK/ WEEK END		CHINOOK #	CHINOOK LBS.	CHINOOK AVG.	SOCKEYE #	SOCKEYE LBS.	SOCKEYE AVG.	COHO #	COHO LBS.	COHO AVG.	PINK #	PINK LBS.	PINK AVG.	CHUM #	CHUM LBS.	CHUM AVG.
OUTER CHINIAK	28	07/11	2	68	34.0	3636	21214	5.8	155	1187	7.7	1422	5033	3.5	1078	7276	6.7
(259-21, 25)	29	07/18	129	1469	11.4	42751	269911	6.3	5761	42109	7.3	22777	84807	3.7	13567	83262	6.1
	30	07/25	18	175	9.7	1823	11384	6.2	312	2096	6.7	2663	10418	3.9	1069	7366	6.9
	31	08/01	2	65	32.5	3153	18077	5.7	299	2047	6.8	2191	8441	3.9	537	3850	7.2
	32	08/08	8	120	15.0	319	1918	6.0	491	3126	6.4	5212	16408	3.1	370	2610	7.1
TOTAL			159	1897	11.9	51682	322504	6.2	7018	50565	7.2	34265	125107	3.7	16621	104364	6.3
INNER CHINIAK	31	08/01	0	0	0.0	0	0	0.0	0	0	0.0	205	761	3.7	313	2192	7.0
(259-23, 24)	32	08/08	0	0	0.0	0	0	0.0	0	0	0.0	419	1564	3.7	79	439	5.6
TOTAL			0	0	0.0	0	0	0.0	0	0	0.0	624	2325	3.7	392	2631	6.7
BUSKIN RIVER (259-22)	32	08/08	0	0	0.0	0	0	0.0	0	0	0.0	138	511	3.7	17	139	8.2
TOTAL			0	0	0.0	0	0	0.0	0	0	0.0	138	511	3.7	17	139	8.2
MONASHKA/MILL BAY	29	07/18	0	0	0.0	1625	10070	6.2	97	630	6.5	760	3105	4.1	196	1275	6.5
(259-10) TOTAL			0	0	0.0	1625	10070	6.2	97	630	6.5	760	3105	4.1	196	1275	6.5
BIG RIVER	31	08/01	35	606	17.3	154595	999978	6.5	10055	63745	6.3	14868	53730	3.6	16240	115550	7.1
(262-10,15)	35	08/29	0	0	0.0	24	116	4.8	455	3867	8.5	15	51	3.4	55	391	7.1
	36	09/05	0	0	0.0	0	0	0.0	30	290	9.7	0	0	0.0	0	0	0.0
TOTAL			35	606	17.3	154619	1000094	6.5	10540	67902	6.4	14883	53781	3.6	16295	115941	7.1
HALO BAY (262-20)	31	08/01	10	168	16.8	16876	111308	6.6	907	6421	7.1	3153	12183	3.9	2921	20858	7.1
TOTAL			10	168	16.8	16876	111308	6.6	907	6421	7.1	3153	12183	3.9	2921	20858	7.1
OUTER KUKAK	26	06/27	0	0	0.0	230	1158	5.0	0	0	0.0	0	0	0.0	0	0	0.0
(262-25, 30)	31	08/01	59	998	16.9	21154	132382	6.3	1904	12569	6.6	17419	68743	3.9	3744	26153	7.0
	32	08/08	9	139	15.4	2923	17192	5.9	1001	6254	6.2	4191	15733	3.8	4753	43308	9.1
TOTAL			68	1137	16.7	24307	150732	6.2	2905	18823	6.5	21610	84476	3.9	8497	69461	8.2
DAKAVAK	27	07/04	0	0	0.0	477	2529	5.3	350	2367	6.8	1881	7769	4.1	1534	10944	7.1
(262-35, 40, 45, 50,	28	07/11	82	855	10.4	5273	34321	6.5	22	151	6.9	715	2921	4.1	1035	8834	8.5
& 55)	29	07/18	33	500	15.2	55	410	7.5	0	0	0.0	50	175	3.5	20	90	4.5
	30	07/25	809	5788	7.2	112847	749163	6.6	2855	21723	7.6	13861	49379	3.6	8352	61425	7.4
	31	08/01	24	449	18.7	7646	51849	6.8	645	4856	7.5	3291	12088	3.7	1623	12649	7.8
	32	08/08	44	634	14.4	10507	65046	6.2	3964	30326	7.7	21082	79043	3.7	15017	110839	7.4
TOTAL			992	8226	8.3	136805	903318	6.6	7836	59423	7.6	40880	151375	3.7	27581	204781	7.4

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Table 5. (page 8 of 8)

SECTION (STAT. AREA)	STAT WEEK	WEEK END	CHINOOK #	CHINOOK LBS.	CHINOOK AVG.	SOCKEYE #	SOCKEYE LBS.	SOCKEYE AVG.	COHO #	COHO LBS.	COHO AVG.	PINK #	PINK LBS.	PINK AVG.	CHUM #	CHUM LBS.	CHUM AVG.
KATMAI	28	07/11	247	3377	13.7	7236	45952	6.4	46	361	7.8	1130	4997	4.4	1312	11243	8.6
(262-60)	30	07/25	154	1640	10.6	57165	357407	6.3	1411	9665	6.8	6142	23986	3.9	4104	30684	7.5
	31	08/01	5	161	32.2	6262	37820	6.0	359	3370	9.4	2438	9387	3.9	1959	13790	7.0
	32	08/08	5	81	16.2	564	3105	5.5	275	1771	6.4	2280	7769	3.4	890	6675	7.5
TOTAL			411	5259	12.8	71227	444284	6.2	2091	15167	7.3	11990	46139	3.8	8265	62392	7.5
ALINCHAK	28	07/11	35	401	11.5	20518	130658	6.4	93	597	6.4	4808	18575	3.9	2873	22883	8.0
(262-65, 70)	29	07/18	4	18	4.5	11938	70845	5.9	67	423	6.3	1442	5798	4.0	377	2874	7.6
	30	07/25	0	0	0.0	1194	8301	7.0	59	599	10.2	253	975	3.9	126	893	7.1
	32	08/08	0	0	0.0	0	0	0.0	0	0	0.0	3012	11087	3.7	4598	33280	7.2
	35	08/29	0	0	0.0	0	0	0.0	771	5340	6.9	47	181	3.9	2270	16322	7.2
TOTAL			39	419	10.7	33650	209804	6.2	990	6959	7.0	9562	36616	3.8	10244	76252	7.4
CAPE IGVAK	25	06/20	171	2336	13.7	42053	232151	5.5	3	20	6.7	1416	3953	2.8	1339	10000	7.5
(262-75, 80, 90, 95)	26	06/27	190	3031	16.0	48732	271801	5.6	1	10	10.0	3209	9480	3.0	2032	15886	7.8
	27	07/04	39	429	11.0	26316	148569	5.6	1	6	6.0	1560	4448	2.9	1449	10761	7.4
	28	07/11	155	1779	11.5	9250	61669	6.7	142	1033	7.3	4153	16131	3.9	4572	37690	8.2
	29	07/18	409	3791	9.3	55156	369139	6.7	1325	9442	7.1	28748	113611	4.0	11876	91500	7.7
	30	07/25	9	122	13.6	5757	33274	5.8	187	1291	6.9	844	3040	3.6	695	5120	7.4
	31	08/01	59	570	9.7	3502	20611	5.9	1872	14281	7.6	13749	54220	3.9	3595	28713	8.0
	32	08/08	260	3028	11.6	1370	7482	5.5	2438	17885	7.3	32493	127106	3.9	9607	71681	7.5
	35	08/29	0	0	0.0	0	0	0.0	90	904	10.0	313	1206	3.9	1207	8452	7.0
TOTAL			1292	15086	11.7	192136	1144696	6.0	6059	44872	7.4	86485	333195	3.9	36372	279803	7.7
WIDE BAY	26	06/27	1	30	30.0	779	3532	4.5	0	0	0.0	50	180	3.6	30	211	7.0
(262-85)	31	08/01	0	0	0.0	77	570	7.4	15	105	7.0	864	3297	3.8	2998	24388	8.1
	35	08/29	0	0	0.0	0	0	0.0	542	3757	6.9	80	306	3.8	877	6306	7.2
TOTAL			1	30	30.0	856	4102	4.8	557	3862	6.9	994	3783	3.8	3905	30905	7.9
KODIAK AREA TOTALS			24299	347817	14.3	4167705	23684254	5.7	280084	2292337	8.2	3310501	12403410	3.7	679484	4927736	7.3

Table 6. Estimated salmon harvest and value by gear type in the Kodiak Management Area, 1970-1992.

Year	Total Catch[a]	Total Value[b]	Average Exvessel Value		
			Purse Seine	Beach Seine	Set Net
1970	13,949,206	$21,658,000	$41,880	$10,470	$21,083
1971	6,378,179	4,973,000	13,397	2,919	3,015
1972	3,883,197	3,909,000	9,233	647	1,451
1973	1,001,343	2,094,000	5,075	251	852
1974	3,329,427	4,808,000	15,993	4,406	4,828
1975	3,187,410	3,831,000	13,300	5,600	3,849
1976	12,484,451	16,976,000	43,017	11,035	14,481
1977	7,976,691	18,873,142	46,942	12,107	19,117
1978	16,942,215	30,357,179	70,685	14,772	22,711
1979	12,420,260	22,958,317	51,263	20,348	23,363
1980	19,157,249	27,410,296	62,363	23,385	21,215
1981	13,094,099	32,647,230	79,877	26,946	34,785
1982	10,891,952	18,803,822	39,309	11,038	28,889
1983	7,081,976	13,405,578	30,239	5,918	16,689
1984	13,678,005	25,948,012	71,550	12,341	26,552
1985	9,897,903	20,428,111	57,782	8,405	27,517
1986	16,304,165	38,723,877	92,696	11,885	68,700
1987	7,746,980	31,107,864	79,814	15,664	41,163
1988	19,009,757	103,816,936	252,403	47,017	119,013
1989[c]	26,455,944	61,046,024	146,502	28,288	72,955
1990	12,122,389	52,611,853	113,326	10,424	66,715
1991	23,723,008	37,018,734	77,509	5,257	53,817
1992[d]	8,462,073	39,888,849	96,184	5,010	42,196
Average 1970-1979:	8,155,238	$13,043,764	$31,079	$8,256	$11,475
Average 1980-1988[e]:	12,984,676	$34,699,081	$85,115	$18,067	$42,725
Average 1987-1992[e]:	14,212,841	$52,888,847	$123,847	$16,674	$64,581

[a] Includes total commercial harvest, test fisheries, and Kitoi Hatchery cost recovery fishery harvests. These figures are in number of fish.

[b] 1970-1976 and 1992 values are exvessel values based upon inseason prices. They may not include additional value associated with dock deliveries or postseason settlements. 1977-1988 and 1990-1991 values are from Commercial Fisheries Entry Commission reports.

[c] Actual harvest was limited in 1989 due to fishery closures caused by the presence of oil from the Exxon Valdez spill. Harvest figures for 1989 include actual and projected harvests on wild stocks, and actual harvest of hatchery stocks from a supplemental cost recovery fishery. The 1989 total value is estimated by multiplying price information from the limited actual wild harvest (from CFEC records) by the projected total harvest had there been no oil spill. The 1989 exvessel value by gear type is estimated by using the 1988 gear levels and proportional harvest by gear type, as if a normal fishery had occurred on a normal distribution of fish.

[d] 1992 data are preliminary, from ADF&G fish ticket summaries.

[e] 1989 data are not included in averages.

Table 7. Summary of limited entry permit activity in the commercial salmon fishery, by gear type, Kodiak Management Area, 1975 - 1992[a].

	Purse Seine		Beach Seine		Set Gillnet		Total		
	Fishable	Fished	Fishable	Fished	Fishable	Fished	Fishable	Fished	Percent
1975	468	280	26	8	229	116	723	404	56
1976	394	325	23	17	187	140	604	482	80
1977	378	336	32	24	186	147	596	507	85
1978	389	372	34	29	188	160	611	561	92
1979	387	362	34	28	186	164	607	554	91
1980	387	370	35	33	187	168	609	571	94
1981	387	325	35	30	187	169	609	524	86
1982	386	345	35	30	187	170	608	545	90
1983	383	342	35	27	188	174	606	543	90
1984	384	296	35	25	188	168	607	489	81
1985	384	270	34	21	188	169	606	460	76
1986	385	287	34	14	187	174	606	475	78
1987	386	297	33	18	188	173	607	488	80
1988	387	323	33	21	188	179	608	523	86
1989[b]	388	4	33	1	189	87	610	92	15
1990	388	354	33	21	189	184	610	559	92
1991	388	348	33	17	189	185	610	550	90
1992[c]	388	336	33	12	189	178	610	526	86
17 Year Average (1975-92)									
	391	328	33	22	190	166	614	515	84

[a] 1977-1991 data from Commercial Fisheries Entry Commission records, 11/12/1992.

[b] 1989 effort levels not included in average totals due to extensive fishery closures due to the presence of oil from the Exxon Valdez spill.

[c] Preliminary information from ADF&G fish ticket summaries.

Table 8. Resident vs. nonresident commercial salmon fishing limited entry permit ownership[a], Kodiak Management Area, 1992-1986.

YEAR/STATUS	PURSE SEINE		BEACH SEINE		SET GILLNET		TOTAL	
	Number	%	Number	%	Number	%	Number	%
1992								
RESIDENT	284	73	30	91	140	74	454	74
NONRESIDENT	103	26	3	9	49	26	155	25
INTERIM	4	1	0	0	1	<1	6	1
TOTAL	**391**		**33**		**190**		**614**	
1991								
RESIDENT	281	73	30	91	138	73	449	74
NONRESIDENT	102	26	3	9	50	27	155	25
INTERIM	5	1	0	0	1	<1	6	1
TOTAL	**388**		**33**		**189**		**610**	
1990								
RESIDENT	283	73	29	88	142	75	454	75
NONRESIDENT	99	25	4	12	46	24	149	24
INTERIM	6	2	0	0	1	1	7	1
TOTAL	**388**		**33**		**189**		**610**	
1989								
RESIDENT	285	73	29	88	145	77	459	75
NONRESIDENT	97	25	4	12	43	23	144	24
INTERIM	6	2	0	0	1	<1	7	1
TOTAL	**388**		**33**		**189**		**610**	
1988								
RESIDENT	286	74	31	86	148	79	465	76
NONRESIDENT	96	24	2	6	39	21	137	23
INTERIM	5	2	0	8	1	<1	6	1
TOTAL	**387**		**33**		**188**		**610**	
1987								
RESIDENT	295	73	31	83	151	80	477	79
NONRESIDENT	86	22	2	6	36	19	124	20
INTERIM	5	5	0	11	1	1	6	1
TOTAL	**386**		**33**		**188**		**607**	
1986								
RESIDENT	294	74	30	80	148	79	472	78
NONRESIDENT	86	21	4	9	39	21	129	21
INTERIM	5	5	0	11	0	<1	5	1
TOTAL	**385**		**34**		**187**		**606**	

[a] Data from Commercial Fisheries Entry Commission records. Numbers reflect only permit ownership and not actual participation in Kodiak Area commercial salmon fisheries.

Table 9. Commercial salmon harvest/1993 harvest projections for the Kodiak Management Area, 1992.

	CHINOOK	SOCKEYE	COHO	PINK	CHUM	TOTAL
1992 Projected Harvest	10,000	3,247,000	250,000	9,220,000	870,000	13,597,000
1992 Actual Harvest	24,300	4,167,700	280,100	3,310,500	679,500	8,462,100
1993 Projected Harvest	21,000	2,370,000	290,000	21,575,000	1,200,500	25,456,500

FISHERY	1992 HARVEST[b]		1993 HARVEST[a,b]
	Projection	Actual[c]	Projection as of 11/30/92
Early Run Sockeye Salmon Fisheries (6/9-7/15)			
Cape Igvak	262,500	161,700	230,000
Karluk	150,000	602,100	250,000
Ayakulik	250,000	957,500	138,000
Fraser	704,000	245,000	232,000
Upper Station	50,000	22,800	35,000
Minor Systems	75,000	16,700	50,000
Other	70,000	470,400	70,000
Sub-Total	**1,561,500**	**2,476,200**	**1,005,000**
Late Run Sockeye Salmon Fisheries (7/16-9/15)			
Afognak (Hatchery)	12,000	5,000	5,000
Cape Igvak	97,500	31,300	95,000
Karluk	1,000,000	605,800	600,000
Ayakulik	170,000	141,300	92,000
Fraser	176,000	29,800	58,000
Upper Station	125,000	219,400	410,000
Minor Systems	75,000	15,100	75,000
Other	30,000	643,800	30,000
Sub-Total	**1,685,500**	**1,691,500**	**1,365,000**
TOTAL SOCKEYE	**3,247,000**	**4,167,700**	**2,370,000**
Coho Salmon Fisheries (8/1-10/1)			
Afognak (Hatchery)	0	5,000	5,000
Afognak (Natural)	20,000	42,700	35,000
Westside	145,000	100,400	135,000
Alitak	20,000	24,500	25,000
Eastside/Northend Kodiak	25,000	75,600	50,000
Mainland	40,000	31,900	40,000
Sub-Total	**250,000**	**280,100**	**290,000**
Pink Salmon Fisheries (7/6-9/5)			
Afognak (Hatchery)	2,320,000	845,400	6,500,000
Afognak (Natural)	700,000	255,700	850,000
Westside Kodiak	4,600,000	1,306,100	4,750,000
Alitak	200,000	59,300	2,870,000
Eastside/Northend Kodiak	600,000	645,400	5,750,000
Mainland	800,000	189,600	855,000
Sub-Total	**9,220,000**	**3,310,500**	**21,575,000**

-Continued-

Table 9. (page 2 of 2)

FISHERY	1992 HARVEST[b]		1993 HARVEST[a,b]
	Projection	Actual[c]	Projection as of 11/30/92
Chum Salmon Fisheries (6/6-9/5)			
Afognak (Hatchery)	25,000	3,500	500
Afognak (Natural)	30,000	40,200	60,000
Westside Kodiak	300,000	270,700	390,000
Alitak	60,000	34,600	70,000
Eastside/Northend Kodiak	180,000	216,400	275,000
Mainland	275,000	114,100	405,000
Sub-Total	**870,000**	**679,500**	**1,200,500**
GRAND TOTAL	**13,597,000** [d]	**8,462,100** [e]	**25,456,500** [f]

[a] 1993 harvest projections. Forecasts for Chignik sockeye have not yet been finalized.
[b] Numbers represent numbers of fish.
[c] Actual harvest estimates by fishery as of 11/20/92. Sockeye harvest estimates by fishery could change as further stock composition work is completed.
[d] Includes 10,000 chinook - projected harvest.
[e] Includes 24,300 chinook - actual harvest.
[f] Includes 21,000 chinook - projected harvest.

Table 10. Historical salmon harvest by species by year, Kodiak Management Area, 1882-1992.[a]

YEAR	CHINOOK	SOCKEYE	COHO	PINK	CHUM	TOTAL
1882	-	59,000	-	-	-	59,000
1883	-	189,000	-	-	-	189,000
1884	-	282,000	-	-	-	282,000
1885	-	469,000	-	-	-	469,000
1886	-	646,000	-	-	-	646,000
1887	-	1,005,000	-	-	-	1,005,000
1888	-	2,781,000	-	-	-	2,781,000
1889	-	3,755,000	-	-	-	3,755,000
1890	-	3,593,000	-	-	-	3,593,000
1891	-	3,846,000	-	-	-	3,846,000
1892	-	3,126,000	-	-	-	3,126,000
1893	-	3,245,000	-	-	-	3,245,000
1894	-	3,830,000	-	-	-	3,830,000
1895	-	2,247,000	8,000	-	-	2,255,000
1896	-	3,329,000	-	-	-	3,329,000
1897	-	2,786,000	2,000	-	-	2,788,000
1898	-	2,033,000	19,000	-	-	2,052,000
1899	1,000	1,935,000	32,000	-	-	1,968,000
1900	5,000	3,450,000	32,000	-	-	3,487,000
1901	4,000	4,826,000	-	2,000	-	4,832,000
1902	3,000	3,868,000	35,000	-	-	3,906,000
1903	1,000	1,826,000	120,000	10,000	-	1,957,000
1904	3,000	2,875,000	103,000	5,000	-	2,986,000
1905	2,000	2,142,000	87,000	-	-	2,231,000
1906	4,000	3,980,000	24,000	-	-	4,008,000
1907	4,000	4,232,000	38,000	-	-	4,274,000
1908	3,000	2,488,000	74,000	286,000	-	2,851,000
1909	4,000	1,915,000	52,000	154,000	-	2,125,000
1910	2,000	1,955,000	44,000	215,000	-	2,216,000
1911	1,000	2,686,000	22,000	230,000	6,000	2,945,000
1912	1,000	2,246,000	17,000	547,000	25,000	2,836,000
1913	1,000	1,663,000	28,000	590,000	4,000	2,286,000
1914	1,000	1,255,000	32,000	1,726,000	13,000	3,027,000
1915	1,000	1,664,000	52,000	252,000	20,000	1,989,000
1916	1,000	3,373,000	50,000	3,182,000	29,000	6,635,000
1917	1,000	3,646,000	30,000	225,000	16,000	3,918,000
1918	2,000	1,894,000	78,000	2,467,000	82,000	4,523,000
1919	2,000	1,619,000	104,000	283,000	60,000	2,068,000
1920	2,000	1,958,000	89,000	1,977,000	55,000	4,081,000
1921	1,000	2,858,000	46,000	68,000	25,000	2,998,000
1922	1,000	1,097,000	120,000	2,766,000	224,000	4,208,000
1923	2,000	1,090,000	78,000	929,000	39,000	2,138,000
1924	1,000	1,408,000	121,000	5,435,000	118,000	7,083,000
1925	2,000	1,693,000	93,000	2,674,000	212,000	4,674,000
1926	1,000	3,015,000	174,000	4,607,000	325,000	8,122,000
1927	4,000	1,155,000	152,000	5,297,000	418,000	7,026,000
1928	3,000	1,592,000	291,000	1,535,000	726,000	4,147,000
1929	3,000	712,000	144,000	6,108,000	1,058,000	8,025,000
1930	5,000	466,000	229,000	1,651,000	419,000	2,770,000
1931	2,000	1,183,000	170,000	6,840,000	184,000	8,379,000
1932	2,000	1,058,000	52,000	4,720,000	237,000	6,069,000

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Table 10. (page 2 of 3)

YEAR	CHINOOK	SOCKEYE	COHO	PINK	CHUM	TOTAL
1933	1,000	1,428,000	91,000	6,574,000	537,000	8,631,000
1934	3,000	1,829,000	86,000	7,642,000	662,000	10,219,000
1935	2,000	1,614,000	63,000	10,781,000	382,000	12,842,000
1936	5,000	2,658,000	163,000	5,648,000	329,000	8,803,000
1937	2,000	1,882,000	134,000	16,788,000	346,000	19,152,000
1938	3,000	1,966,000	133,000	8,398,000	640,000	11,140,000
1939	4,000	1,786,000	64,000	11,741,000	641,000	14,236,000
1940	3,000	1,318,000	163,000	9,997,000	674,000	12,155,000
1941	5,000	1,730,000	208,000	7,601,000	445,000	9,989,000
1942	3,000	1,281,000	106,000	6,093,000	565,000	8,048,000
1943	2,000	1,991,000	61,000	12,480,000	454,000	14,988,000
1944	2,000	1,818,000	45,000	4,956,000	507,000	7,328,000
1945	4,000	2,041,000	79,000	9,045,000	559,000	11,728,000
1946	1,000	839,000	71,000	9,546,000	298,000	10,755,000
1947	1,000	994,000	72,000	8,857,000	295,000	10,219,000
1948	1,000	1,260,000	32,000	5,958,000	331,000	7,582,000
1949	1,000	892,000	54,000	4,928,000	700,000	6,575,000
1950	2,000	921,000	41,000	5,305,000	685,000	6,954,000
1951	2,000	470,000	48,000	2,006,000	422,000	2,948,000
1952	1,000	631,000	36,000	4,554,000	984,000	6,206,000
1953	3,000	392,000	39,000	4,948,000	490,000	5,872,000
1954	1,000	329,000	56,000	8,325,000	1,140,000	9,851,000
1955	2,000	164,000	35,000	10,794,000	480,000	11,475,000
1956	1,000	306,000	54,000	3,349,000	660,000	4,370,000
1957	1,000	234,000	35,000	4,691,000	1,152,000	6,113,000
1958	2,000	288,000	21,000	4,039,000	931,000	5,281,000
1959	2,000	330,000	15,000	1,800,000	734,000	2,881,000
1960	2,000	362,000	54,000	6,685,000	1,133,000	8,236,000
1961	1,000	408,000	29,000	3,296,000	519,000	4,883,000
1962	1,000	785,000	54,000	14,189,000	795,000	15,824,000
1963	-	407,000	57,000	5,480,000	305,000	6,249,000
1964	1,000	478,000	36,000	11,862,000	932,000	13,309,000
1965	1,000	346,000	27,000	2,887,000	431,000	3,692,000
1966	1,000	632,000	68,000	10,756,000	763,000	12,220,000
1967	1,000	284,000	10,000	188,000	221,000	704,000
1968	2,000	760,000	56,000	8,761,000	750,000	10,329,000
1969	2,000	604,000	35,000	12,493,000	537,000	13,671,000
1970	1,000	917,000	66,000	12,045,000	919,000	13,949,000
1971	1,000	478,000	23,000	4,333,000	1,541,000	6,378,000
1972	1,000	222,000	14,000	2,486,000	1,165,000	3,883,000
1973	1,000	167,000	4,000	512,000	318,000	1,001,000
1974	1,000	409,000	14,000	2,635,000	248,000	3,329,000
1975	-	137,000	25,000	2,945,000	85,000	3,187,000
1976	1,000	641,000	24,000	11,078,000	740,000	12,485,000
1977	1,000	623,000	28,000	6,252,000	1,072,000	7,977,000
1978	3,000	1,072,000	49,000	15,004,000	814,000	16,942,000
1979	2,000	632,000	141,000	11,287,000	358,000	12,420,000
1980	1,000	651,000	139,000	17,290,000	1,076,000	19,157,000
1981	1,000	1,289,000	122,000	10,337,000	1,345,000	13,094,000
1982	1,000	1,205,000	344,000	8,076,000	1,266,000	10,892,000
1983	4,000	1,232,000	158,000	4,603,000	1,085,000	7,082,000
1984	5,000	1,951,000	230,000	10,884,000	649,000	13,678,000

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YEAR	CHINOOK	SOCKEYE	COHO	PINK	CHUM	TOTAL
1985	5,000	1,843,000	284,000	7,335,000	431,000	9,898,000
1986	4,000	3,155,000	168,000	11,504,000	1,126,000	16,304,000
1987	5,000	1,793,000	192,000	5,073,000	682,000	7,747,000
1988	22,000	2,698,000	303,000	14,262,000	1,426,000	19,010,000
1989[b]	5,000	2,629,000	141,000	22,649,000	836,000	26,259,000
1990	18,810	5,248,000	293,700	5,983,810	577,740	12,122,150
1991	22,200	5,704,000	324,900	16,642,800	1,029,100	23,723,000
1992	24,300	4,167,700	280,100	3,310,500	679,500	8,462,100
Average All Years (44 years 1948-1992)						
	3,350	**1,079,760**	**92,080**	**7,299,500**	**783,990**	**9,258,680**
Odd Year (OY) (22 years 1949-1992)				**5,848,700**		
Even Year (EY) (23 years 1948-1992)				**8,864,810**		
Most Recent 10 years (1982-1991[b])						
				(EY)		(EY)
	9,670	**2,758,7890**	**255,290**	**10,141,960**	**919,090**	**14,084,790**
				(OY)		(OY)
				8,413,450		**12,356,280**

[a] DATA SOURCE: For the period 1882-1947, the harvest data was derived from "casepack" information supplied by commercial buyers and processors. For the period 1948 - present, the harvest data was derived from "fish ticket" information summarized by ADF&G.

[b] The 1989 harvest data shown is unique from all other years in that the total harvest by species in this table is the summation of the actual harvest which did occur and the projected harvest which would have occurred if there had not been restrictions on the 1989 fishery because of the presence of oil-contaminated waters in the Kodiak Area due to the 4/24/89 "Exxon Valdez" oil spill and is not included in average harvest totals.

Table 11. Estimates of sockeye salmon harvested during the approximate time period of July 6 through July 25 which averaged 6.0 lbs in weight or greater, by Management Unit compared to pink and chum salmon harvested during this same time period, Kodiak Management Area, 1992.

Management Area	Dates	Number of Sockeye Salmon w/approx. wt. 6.0 lbs or greater	Number of Sockeye Salmon w/wt. less than 6.0 lbs	Number of Pink and Chum Salmon
Southwest Afognak	7/5-7/25	29,000	25,500	40,000
Northwest Afognak	7/6-7/25	8,000	9,300	11,500
Northeast Afognak	7/6-7/25	4,700	2,700	22,000
Izhut	7/6-8/1	2,700	1,400	28,900
Duck Bay	7/6-7/25	9,000	6,800	31,800
Southeast Afognak	7/5-7/25	10,000	1,600	12,500
Central	7/5-7/25	191,600	75,900	419,500
North Cape/Anton	7/5-7/25	15,400	2,900	28,900
Halibut Bay[a]	7/5-7/25	366,700	400	98,200
Inner/Outer Ayakulik[a]	7/5-7/25	200,000	600	38,900
Cape Alitak[a]	7/5-7/25	30,000	80,100	33,600
Humpy/Deadman[a]	7/5-7/25	11,800	-	1,445
Seven Rivers	7/6-7/25	8,400	-	4,000
Two Headed	7/6-7/25	44,200	-	29,500
Sitkalidak	7/6-7/25	429,600	-	277,000
Inner/Outer Ugak	7/6-7/25	68,200	4,800	52,800
Outer Chiniak	7/6-7/25	44,600	3,600	42,600
Monashka	7/6-7/25	1,600	-	1,000
Big River	7/6-8/1	154,600	-	31,100
Halo Bay	7/6-8/1	16,900	-	6,100
Outer Kukak	7/6-8/1	21,200	-	21,200
Dakavak	7/6-8/8	136,300	-	28,900
Katmai	7/6-8/1	70,700	-	17,085
Alinchak	7/6-7/25	21,700	11,900	9,900
Cape Igvak[b]	7/10-7/18	64,400	5,800	50,900
Total Areas Combined		1,896,900	227,500	1,288,630
Totals for All Areas Where Fishing Time is Directed Toward Pink and Chum Salmon		1,288,400	146,400	1,116,485
[a]Totals for All Areas Where Fishing Time is Directed Towards Sockeye Salmon Returning to Systems Such as Ayakulik, Karluk, and Fraser		608,500	81,100	172,145

[b] Not included in totals - fishing time in accordance with Cape Igvak Management Plan targeting sockeye bound to Chignik.

Table 12. Preliminary 1992 commercial salmon harvest and value, by gear type, Kodiak Management Area. 11/17/92[a]

	Chinook	Sockeye	Coho	Pink	Chum	Total	Percent
PURSE SEINE							
Total Number	20,654	3,319,711	229,869	2,736,147	537,224	6,843,605	80.88
Average Weight (lb)	14.60	5.79	8.01	3.69	7.20		
Total Pounds	301,531	19,206,955	1,840,922	10,099,983	3,866,568	35,315,959	80.91
Average Price ($/lb)	1.00	1.45	0.60	0.15	0.40		
Exvessel Value ($)	301,531.00	27,850,084.75	1,104,553.20	1,514,997.45	1,546,627.20	32,317,793.60	81.02
Active Permits = 336							
Average Value ($)	897.41	82,887.16	3,287.36	4,508.92	4,603.06	96,183.91	
Percent of Total Value	0.93	86.18	3.42	4.69	4.79	100.00	
BEACH SEINE							
Total Number	201	3,015	428	45,375	2,929	51,948	0.61
Average Weight (lb)	19.34	4.68	10.36	3.59	7.43		
Total Pounds	3,887	14,104	4,433	162,823	21,755	207,002	0.47
Average Value ($/lb)	1.00	1.45	0.60	0.15	0.40		
Exvessel Value ($)	3,887.00	20,450.80	2,659.80	24,423.45	8,702.00	60,123.05	0.15
Active Permits = 12							
Average Value ($)	323.92	1,704.23	221.65	2,035.29	725.17	5,010.25	
Percent of Total Value	6.47	34.01	4.42	40.62	14.47	100.00	
SET GILLNET							
Total Number	3,444	843,864	49,787	528,974	139,312	1,565,381	18.50
Average Weight (lb)	12.31	5.28	8.98	4.05	7.46		
Total Pounds	42,399	4,457,618	446,982	2,140,586	1,039,274	8,126,859	18.62
Average Value ($/lb)	1.00	1.45	0.60	0.15	0.40		
Exvessel Value ($)	42,399.00	6,463,546.10	268,189.20	321,087.90	415,709.60	7,510,931.80	18.83
Active Permits = 178							
Average Value ($)	238.20	36,312.06	1,506.68	1,803.86	2,335.45	42,196.25	
Percent of Total Value	0.56	86.06	3.57	4.27	5.53	100.00	
TOTAL ALL GEAR							
Total Number	24,299	4,166,590	280,084	3,310,496	679,465	8,460,934	100.00
Average Weight (lb)	14.31	5.68	8.18	3.75	7.25		
Total Pounds	347,817	23,678,677	2,292,337	12,403,392	4,927,597	43,649,820	100.00
Average Value ($/lb)	1.00	1.45	0.60	0.15	0.40		
Exvessel Value ($)	347,817.00	34,334,081.65	1,375,402.20	1,860,508.80	1,971,038.80	39,888,848.45	100.00
Percent of Total Value	0.87	86.07	3.45	4.66	4.94		100.00
TEST FISHERY							
Total Number	0	1,115	0	5	19	1,139	
Average Weight (lb)	0.00	5.00	0.00	3.60	7.32		
Total Pounds	0	5,577	0	18	139	5,734	
Average Value ($/lb)	1.00	1.45	0.60	0.15	0.40		
Exvessel Value ($)	0.00	8,086.65	0.00	2.70	55.60	8,144.95	

[a] Numbers and pounds of fish are derived from fish ticket summaries. There were 16,388 fish tickets generated in 1992; each fish ticket represents a "landing". Each gear type had the following number of landings: Purse Seine - 9,658, Beach Seine - 161, and Set Gillnet - 6,543. Average price per pound figures are derived from inseason estimated average prices and do not reflect any additional payments which might be made for dock deliveries or any postseason settlements.

Table 13. Indexed peak salmon escapement goals (minimum and desired) vs. actual escapements, by species, by District, Kodiak Management Area, 1992.

DISTRICT	Sockeye Escapement Goal (Minimum/Desired)	Sockeye Escapement Actual	Pink Escapement Goal (Minimum/Desired)	Pink Escapement Actual	Chum Escapement Goal (Minimum/Desired)	Chum Escapement Actual	Coho Escapement Goal (Minimum/Desired)	Coho Escapement Actual	Chinook Escapement Goal (Minimum/Desired)	Chinook Escapement Actual
AFOGNAK	83,000 154,000	**105,412**	148,000 444,000	**447,936**		**2,615**	13,500 23,600	**44,472**		**1**
NORTHWEST	56,000 90,000	**95,959**	315,000 915,000	**828,603**	72,000 216,000	**135,749**	9,000 14,000	**22,882**		**5**
SOUTHWEST	760,500 1,201,000	**1,175,598**	1,250,000 2,550,000	**1,078,966**	50,000 150,000	**54,074**	33,000 52,000	**123,460**	11,000 19,000	**18,736**
ALITAK	386,000 550,000	**491,445**	162,000 486,000	**183,124**	38,000 114,000	**49,372**	10,500 20,000	**21,838**	100 300	**265**
EASTSIDE	29,500 64,000	**49,810**	150,000 450,000	**380,695**	88,000 264,000	**56,585**	10,000 15,000	**32,960**		**0**
NORTHEAST	10,000 15,000	**9,784**	120,000 360,000	**177,240**	20,000 60,000	**14,133**	10,475 16,555	**13,205**		**6**
MAINLAND	33,500 66,000	**40,050**	256,000 768,000	**419,060**	242,00 726,000	**217,600**	4,000 9,000	**30,775**		**0**
TOTAL	1,358,500 2,140,000	**1,968,058**	2,401,000 6,003,000	**3,515,624**	510,000 1,530,000	**530,128**	90,475 150,155	**289,592**	11,100 19,300	**19,013**

Table 14. Subsistence salmon fishery harvest summary by species by year, Kodiak Management Area, 1962-1991.

YEAR	PERMITS ISSUED	PERMITS RETURNED	PERCENT RETURNED	CHINOOK	SOCKEYE	COHO	PINK	CHUM	TOTAL
1962	74	13	18	0	0	433	397	20	850
1963	74	15	20	0	297	576	836	195	1,904
1964	43	9	21	6	332	184	88	71	681
1965	67	7	10	2	19	318	244	12	595
1966	48	13	27	0	295	331	334	393	1,353
1967	84	29	35	2	1,306	571	894	344	3,117
1968	132	28	21	0	658	433	529	45	1,665
1969	242	30	12	1	481	338	620	30	1,470
1970	213	49	23	1	959	939	797	265	2,961
1971	267	131	49	5	3,442	1,720	1,276	472	6,915
1972	329	176	54	11	3,633	1,531	2,516	2,729	10,420
1973	400	149	37	7	4,453	2,289	1,393	1,166	9,308
1974	367	90	25	1	1,909	846	1,094	128	3,978
1975	508	90	18	1	1,141	922	947	221	3,232
1976	536	243	45	4	4,338	962	2,275	370	7,949
1977	739	451	61	54	8,119	2,508	2,849	317	13,847
1978	860	539	63	50	7,239	3,699	2,747	572	14,307
1979	1,085	697	64	111	10,376	3,840	3,300	333	17,960
1980	1,239	756	61	67	13,746	4,407	2,755	566	21,541
1981	1,166	733	63	44	12,756	3,729	2,278	470	19,277
1982	1,276	993	78	110	16,615	7,192	3,558	667	28,142
1983	1,307	1,082	83	111	15,526	6,283	2,536	800	25,256
1984	1,240	1,061	86	265	17,620	5,808	1,877	720	26,290
1985	1,476	1,196	81	172	16,231	8,873	2,756	855	28,887
1986	1,244	1,049	84	91	14,451	7,087	2,371	605	24,605
1987	1,124	904	80	101	13,277	6,737	2,409	1,316	23,840
1988	1,098	706	64	108	10,142	4,074	1,274	366	15,964
1989	2,800[a]	715	N/A	41	11,998	3,707	1,492	367	17,605
1990	2,900[a]	1,181	N/A	131	17,972	8,646	1,605	655	29,009
1991	1,890	1,239	N/A	175	21,590	8,201	1,743	714	32,423
30 YEARS OF DATA				1,672	230,921	97,184	49,790	15,784	395,351
30 YEAR AVERAGE				56	7,697	3,239	1,660	526	13,178
MOST RECENT 10 YEAR AVERAGE 1981 - 1990				117	14,658	6,214	2,216	682	23,887

CATCH IS FROM RETURNED PERMITS ONLY

[a] Permits were mailed to all eligible applicants listed totaling approximately 2,800. In 1990 approximately 1/5 of the 2,900 permits issued were "returned to sender" as "undeliverable". These names were removed from the permittee list.

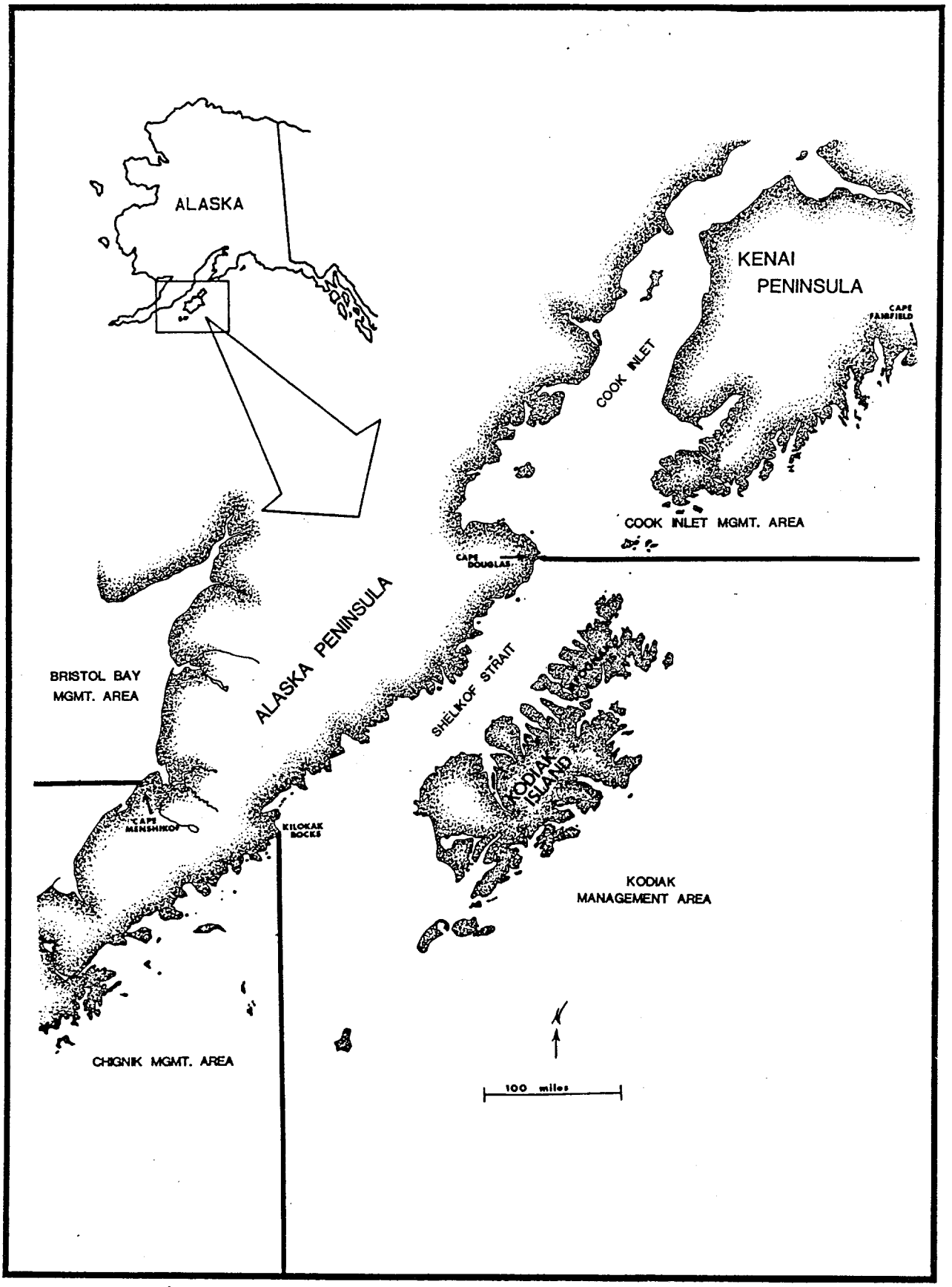


Figure 1. Kodiak Management Area and adjacent management areas. 1992.

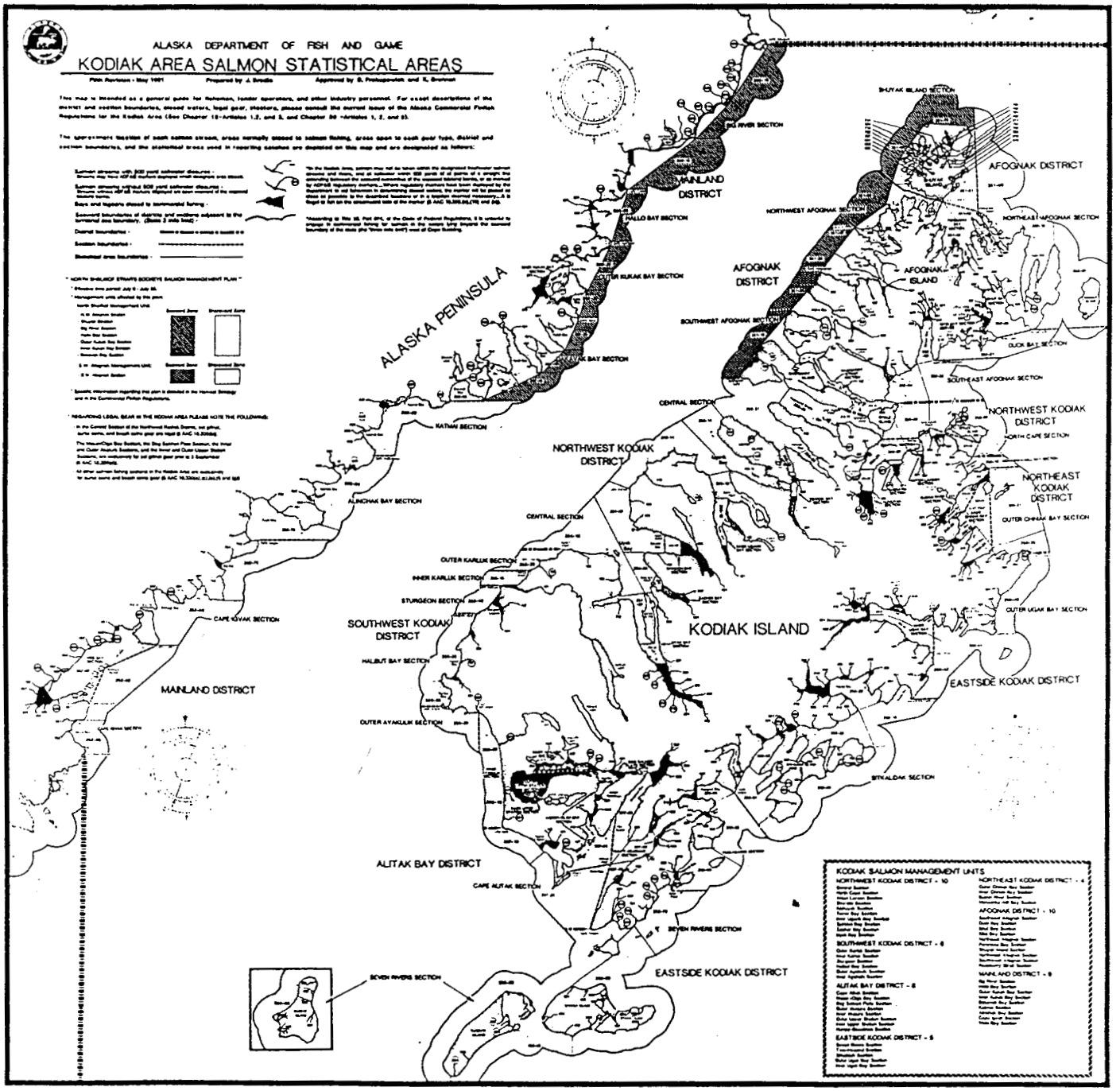


Figure 2. Kodiak Management Area salmon district map, 1992.

Figure 3. Chronology of commercial salmon fisheries, by species, Kodiak Management Area, 1992.

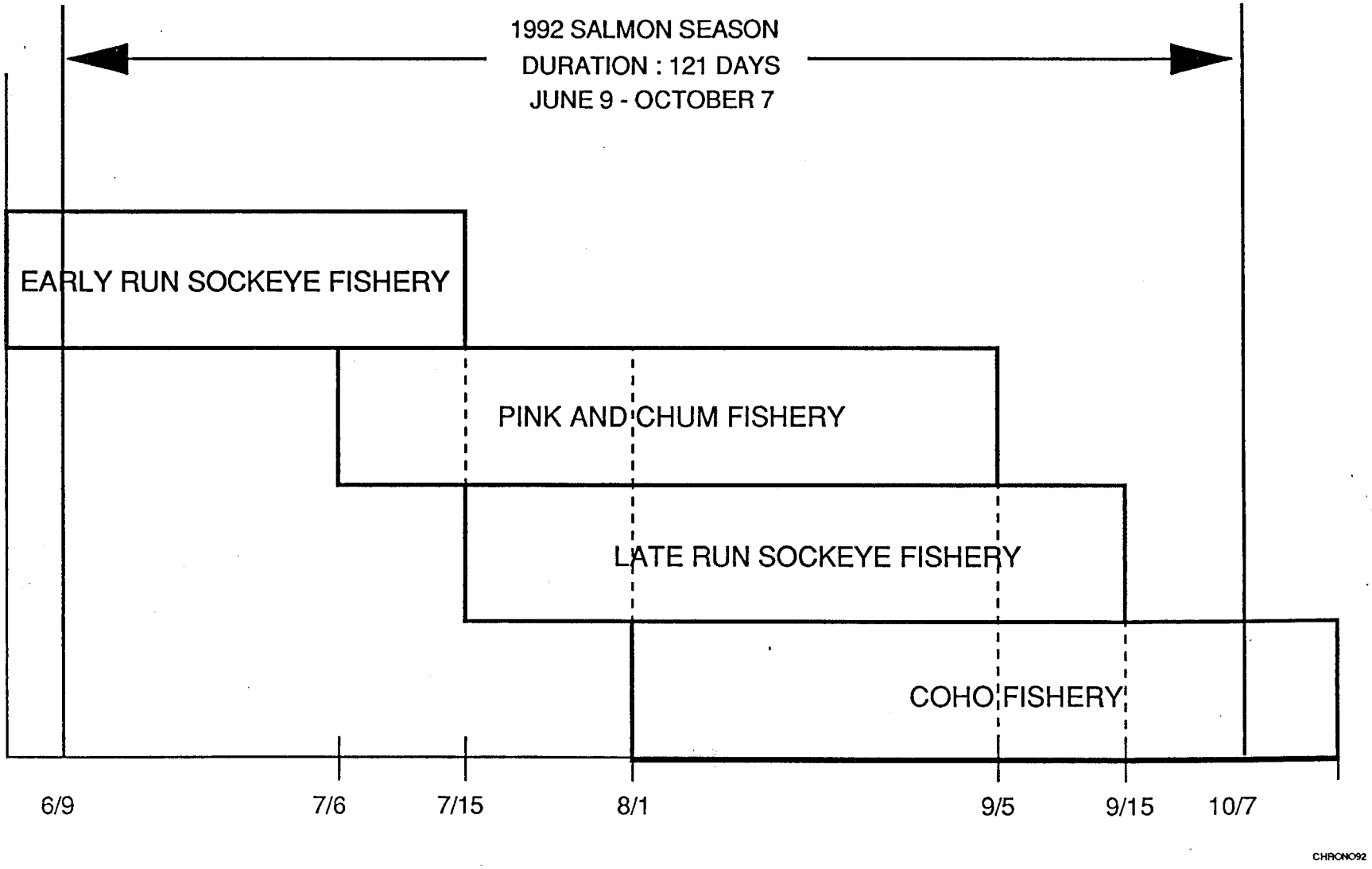


Figure 4. Commercial fishing time by district and section, Kodiak Management Area, 1992.

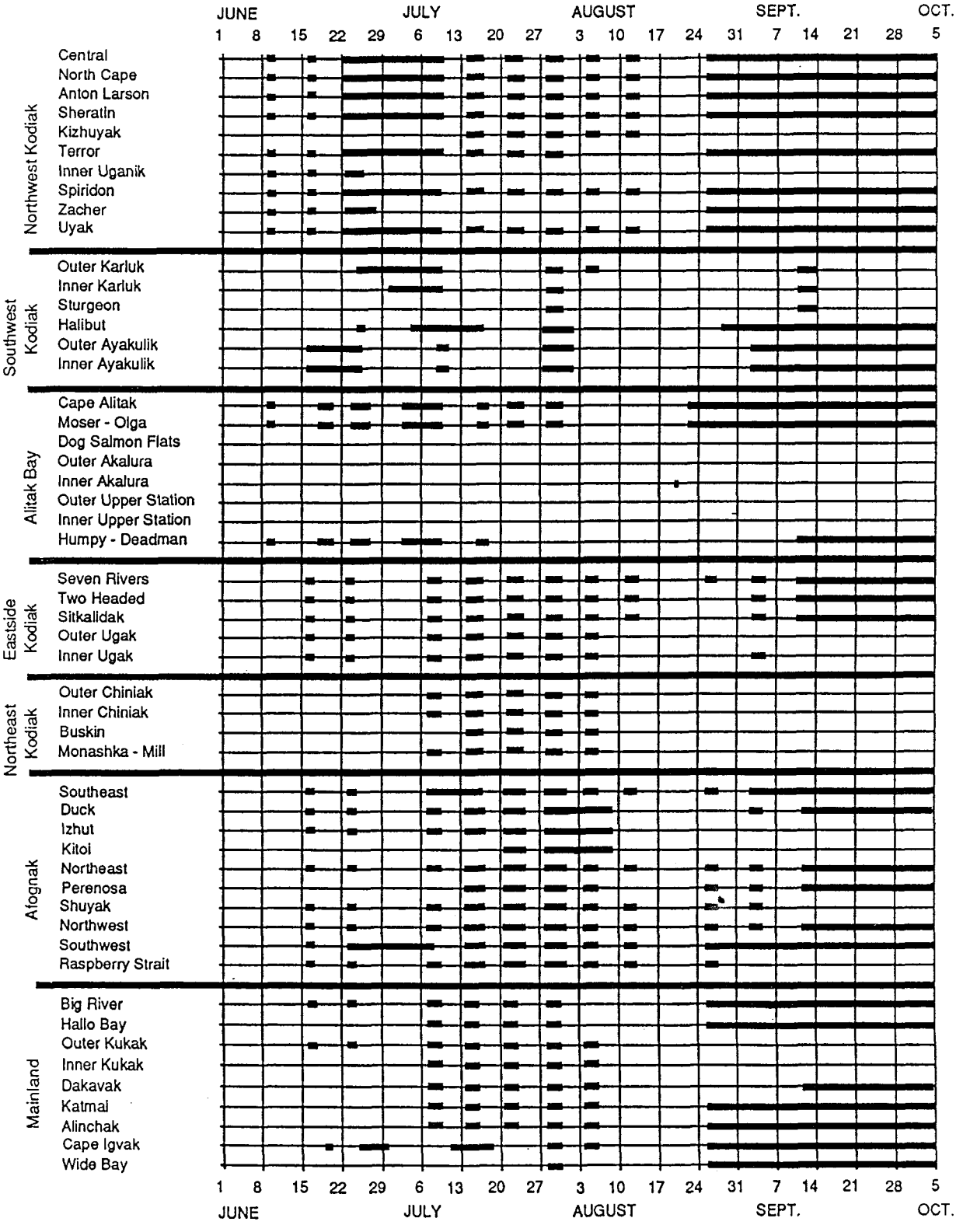


Figure 5. Salmon harvest by species and date, Kodiak Management Area, 1992.

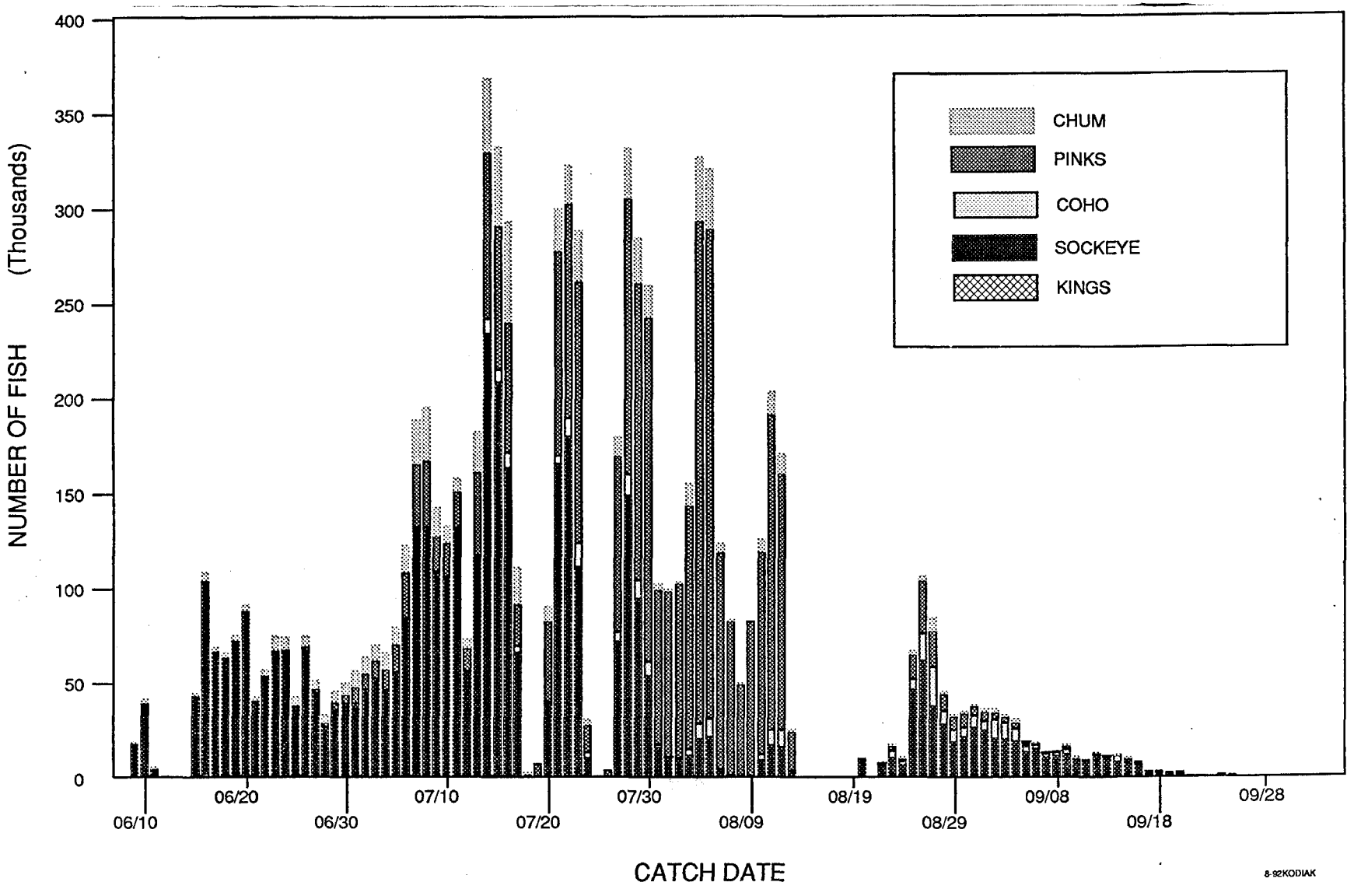


Figure 6. Excerpt from 1992 Harvest Strategy.

FISHING PERIODS

- ALL FISHING PERIODS WILL BE BY EMERGENCY ORDER and will generally be based upon inseason assessment of actual run strength.

- ALL REGULAR FISHING PERIODS WILL BEGIN AT 12:00 NOON AND END AT 9:00 P.M., except that:

  - The Cape Igvak fisheries will always begin at 12:01 A.M. and end at 12:00 Midnight during the period 6/5 - 7/25.

  - The Inner Ayakulik Section fisheries will always begin at approximately low water. These will be daylight openings with pre-announced opening times and these fisheries will be initiated by ADF&G "flare openings". When such openings occur, the opening time for Outer Ayakulik Section may be adjusted to coincide with the Inner Ayakulik Section.

  - Beginning on August 16, all fishing periods will end at 6:00 P.M. instead of 9:00 P.M.

- ADVANCE NOTICE FOR EACH FISHING PERIOD

  - All advance notice time will be based upon the initial announcements being made on SSB frequency 4125 Khz, by Peggy Dyson following her **6:00 P.M.** daily weather broadcasts.

  - For the **Cape Igvak fishery,** the initial fishing period will have at least a **36 hour advance notice.** All subsequent fishing periods will have at least 18 hours advance notice.

  - For the **June sockeye fisheries** in the Alitak, S.W. Kodiak, and N.W. Kodiak Districts, **the initial fishing periods** will have at least a **42 hour advance notice;** this includes the normal June 9 fishing period for the Alitak and N.W. Kodiak Districts and the approximate June 15 fishing period for the N.W. Kodiak District.

  - **All subsequent fishing periods for the Kodiak Area prior to July 6 will have at least 18 hours advance notice.**

  - For the **initial pink/chum salmon fisheries,** at least **42 hours advance notice** will be provided, with the fishery starting at 12:00 noon **on July 6.**

  - **All subsequent fishing periods for the Kodiak Area after the initial July 6 fishing period will have at least 18 hours advance notice.**

  - All extensions in fishing time from a pre-announced fishing period will have at least 3 hours advance notice.

- IN PERIOD CLOSURES

- During the period July 6 through July 25 in period closures of "Seaward Zones" designated in the North Shelikof Strait Sockeye Salmon Management Plan may occur. Fishermen who are fishing in management units covered by this plan are advised that in period closures of "Seaward Zones" are possible and that such closures will be announced on SSB frequency 4.125 at 8:00 A.M., 10:00 A.M., 2:00 P.M., or 6:00 P.M. with the effective closure time occurring three hours following the initial announcement time.

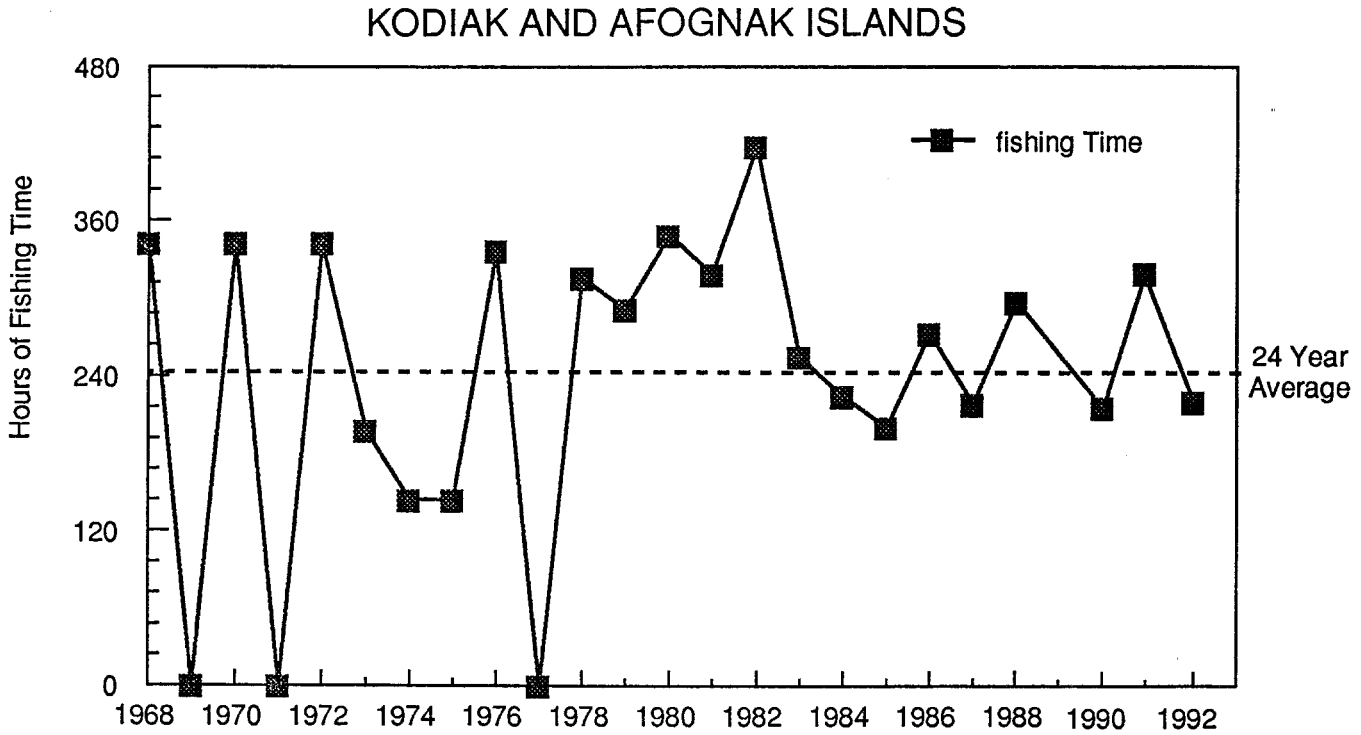
Figure 6. (page 2 of 2)

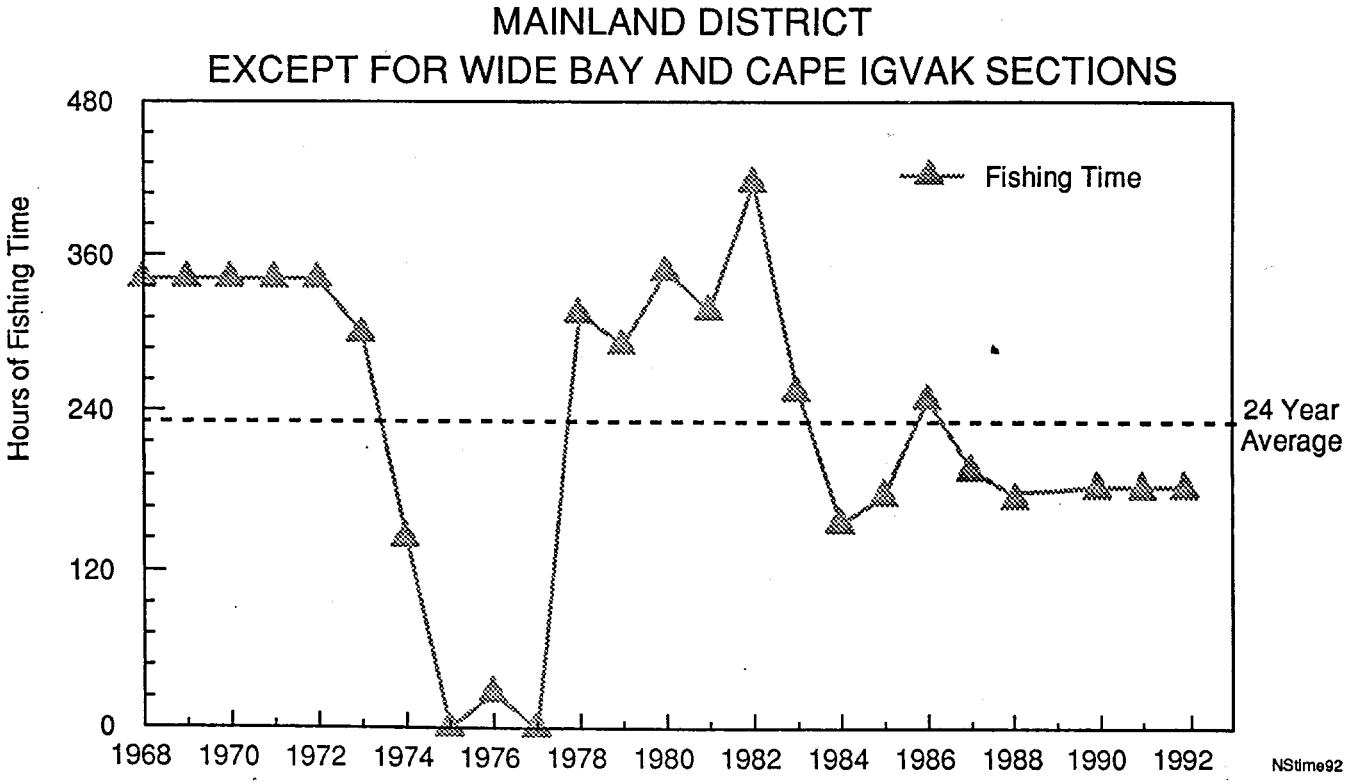
In consideration of the forecasted strength of the 1992 pink salmon return, the 1992 pattern of fishing periods for those management units where pink salmon are the targeted management species is expected to vary in fishing time from 2-1/2 days to 3-1/2 days per week during the time of July 6 through approximately August 25. Continuous fishing during the peak of the return, July 30 through August 10, is possible if pink salmon returns to Kitoi Bay Hatchery, Ayakulik and Karluk rivers develop as expected.

Listed below are projected fishing period scenarios which can be used for planning purposes by both ADF&G and industry. Changes in these scenarios should be expected if significant deviations in the actual pink salmon return occurs. Less fishing time should be expected in management units where chum salmon are the targeted management species

- **First Period: 2-1/2 days/57 hours - 12:00 Noon July 6 through 9:00 P.M. July 8.**
  - For recent even years, this initial fishing period has consistently been 2-1/2 days in duration. This period provides harvest data important for early run-strength assessment for Area K's entire pink salmon run as well as for specific chum salmon stocks. No extensions in fishing time based on pink or chum salmon harvests would occur during this period.
- **Second Period: 3-1/2 days/81 hours - 12:00 Noon July 13 through 9:00 P.M. July 16.**
  - This second period will help ensure that early run pink salmon stocks and several major chum salmon stocks are adequately harvested per the stated management goals and at least minimum escapements are ensured. Assessment of run strength for both species will emphasize harvest data, and initial bay build-ups for both species will be somewhat apparent during this period. No extensions in fishing time based on pink or chum salmon harvests would occur during this period. **The Inner Uganik, Terror, Uyak, and Zachar Bay Sections may remain closed beginning with this fishing period.**
- **Third Period: 3-1/2 days/81 hours - 12:00 Noon July 20 through 9:00 P.M. July 23.**
  - This third period will occur following a 3-1/2 day closure to allow an influx of fish into terminal areas of pink and chum salmon to enhance the "build-ups" of potential escapement fish. This is the first fishing period when the combination of harvest and early escapement/build-up information will provide the initial indications of actual run strength for major pink salmon fisheries. While no extensions in fishing time are expected during this period, the assessment results of this period have commonly resulted in reduced fishing time during the fourth period for years of weaker than expected pink salmon returns.
- **Fourth Period: 3-1/2 days/81 hours - 12:00 Noon July 27 through 9:00 P.M. July 30.**
  - This fourth period is a critical period in that the peak harvest dates and a fairly accurate assessment of total run strength should be evident by period's end. Commonly, extensions in fishing time occur off of this period for years when returns are equal to or stronger than expected. Fishing time in the Inner and Outer Karluk Sections, the Sturgeon, Halibut Bay and Ayakulik Sections should be expected.
- **Fifth Period: 3-1/2 days/81 hours - 12:00 Noon August 3 through 9:00 P.M. August 6.**
  - This fifth period should be the peak harvest period in 1992 provided normal run timing occurs. If pre-season expectations appear valid, extensions in fishing time could occur in portions of the management area. This period commonly yields the first significant announcement of differential

Figure 7. Commercial salmon fishing time in sections managed for pink salmon (July 6 - 25), Kodiak Management Area, 1968 - 1992.





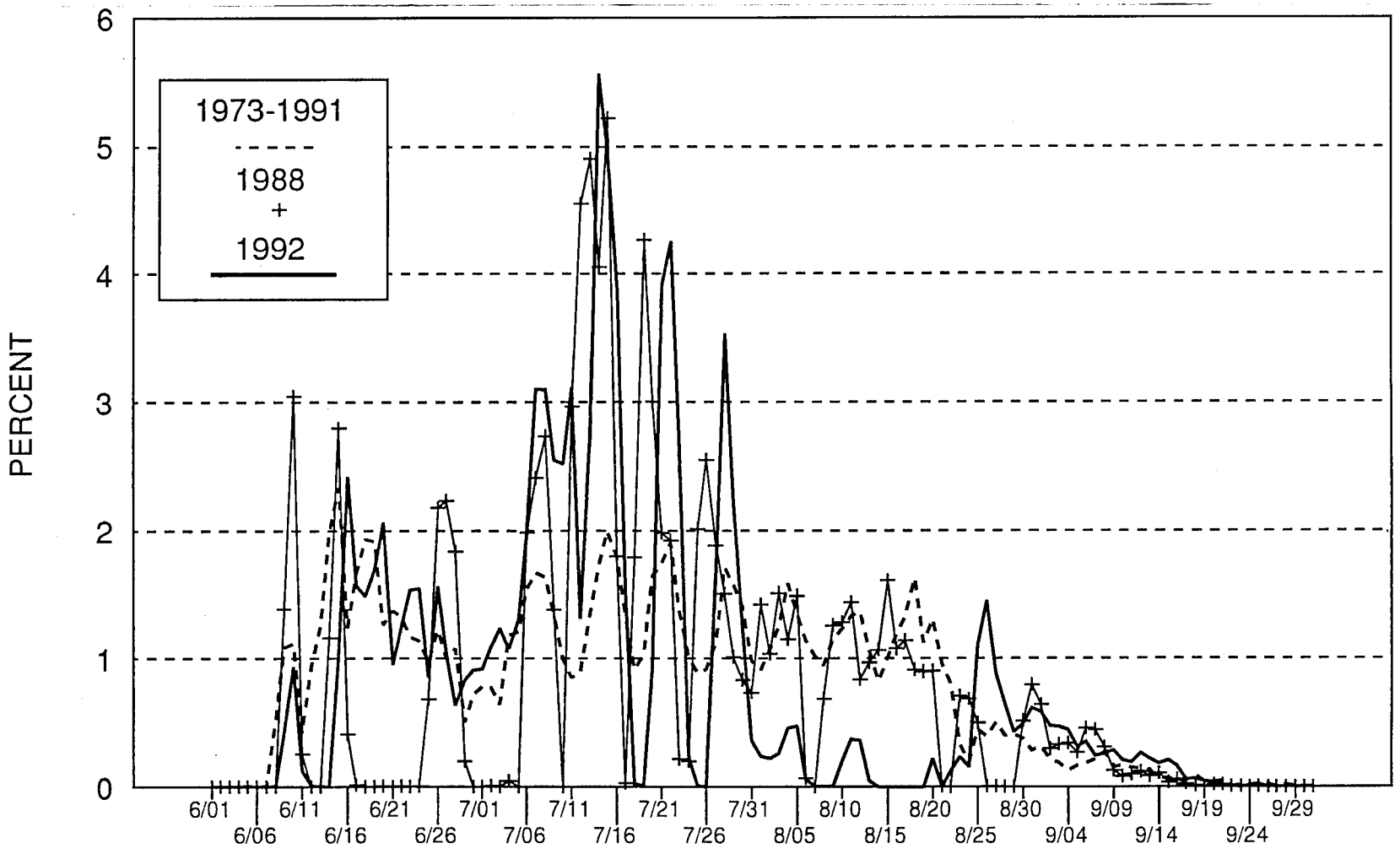


Figure 8. Commercial sockeye harvest percent by day, Kodiak Management Area, 1992.

APPENDIX A

Summary of the Cape Igvak Management Plan

Appendix A. Summary of the Cape Igvak Management Plan.

The Cape Igvak Management Plan covers the time period from June 5 through July 25 for fishing activity in the Cape Igvak Section of the Mainland District. This plan has been in effect since 1978 and allocates a percentage of the available Chignik sockeye salmon for harvesting (approximately 15%) to Kodiak permit holders when specific biological and harvest criteria are met in Chignik.

The Cape Igvak Section is located on the Alaska Peninsula (Appendix A.1). This section's southern boundary is the longitude of Kilokak Rocks which is also the boundary line between the Chignik and Kodiak Management areas. The northern boundary of the Cape Igvak Section is the latitude of Cape Aklek at the southern entrance to Puale Bay and the western boundary excludes Wide Bay (Wide Bay Section). The distance between Kilokak Rocks and Cape Aklek is approximately 40 nautical miles.

Historically, fishing activity in the Cape Igvak Section is documented from 1964 to present. Fishing time from 1964 to 1972 was regulated by set weekly fishing periods in the regulation book and were usually five days per week. During the period 1973 to 1977 fishing time was allowed on a day for day basis dependent on fishing time in the Chignik Management Area. Beginning with the 1978 season, the current Cape Igvak Management Plan has been in effect (Appendix A.2). A detailed description of the Cape Igvak Management plan is listed in the regulation book under 5 AAC 18.360.

Appendix A.3 shows Cape Igvak Section sockeye harvest vs. Chignik sockeye and the subsequent harvest percent of Chignik bound sockeye in the Cape Igvak Section from the time period prior to and post adoption of the Cape Igvak Management Plan. Actual harvest numbers and percentages are listed in Appendix A.4.

Participation in this fishery is by Kodiak purse seine permit holders and has ranged from 40 to 170 vessels, with an average of 130 vessels during the past 13 years (1980-1992) during the period June 5 through July 25.

Prior to 1978 the percent harvest of Chignik bound sockeye salmon for the Cape Igvak Section had been as high as 23 percent (1970). Since 1978, under the Cape Igvak Management Plan the percent harvest of Chignik bound sockeye salmon has met or exceeded the 15 percent allocation in only two out of fifteen years. Once in 1983 when the percent was 16.05 and again in 1987 when the percentage harvested was 15.08. Excluding 1989, when the area was closed due to oil contamination, the primary reason for not achieving the 15 percent allocation requirement for the Cape Igvak fishery the remaining 12 years was due to extended closures of the Cape Igvak fishery in order to assure that the biological and other allocative (Chignik sockeye harvest) requirements of the plan were adhered to and achieved

Fishing time after July 25 in the Cape Igvak Section has been targeted toward pink, chum and coho salmon bound to spawning streams in the Cape Igvak Section (ten documented anadromous streams) and in the Wide Bay Section (18 documented salmon streams).

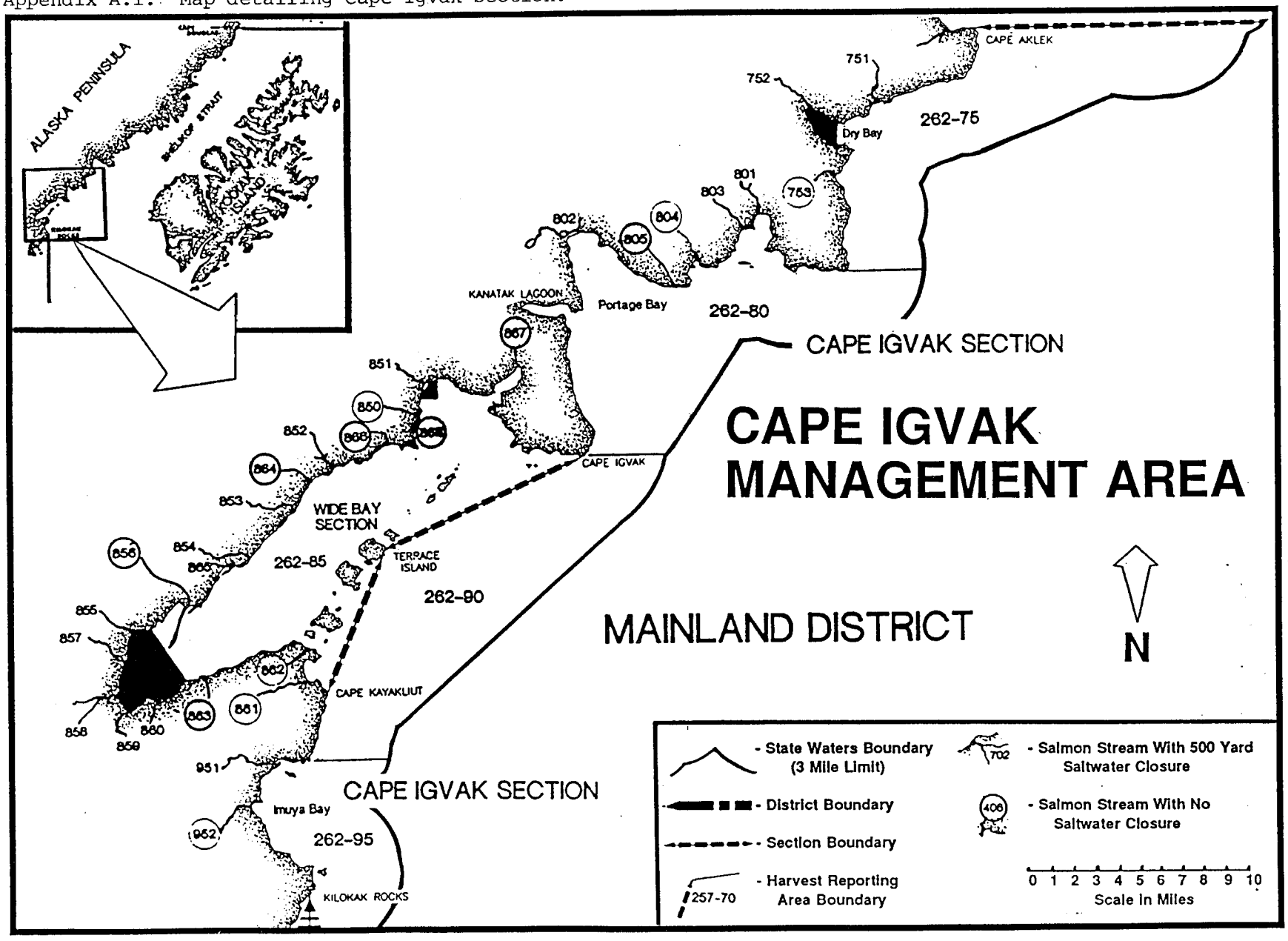
Although provided for in the Cape Igvak Management Plan, no fishing time in the Cape Igvak Section after July 25 has been specifically targeted on late run sockeye bound to Chignik. Average harvests by species by week are shown in Appendix A.5 and by year in Appendix A.6. Coho salmon harvests by year pre and post July 25 are shown in Appendix A.7. In addition, the average percent harvest by day for coho caught in the Cape Igvak Section is shown in Appendix A.8. Appendix A.9 compares the entire Kodiak commercial coho salmon harvest by year to coho salmon harvests in Chignik, South Peninsula, North Peninsula, Bristol Bay, Kuskokwim, Yukon, and Norton Sound.

Listed below are the pink and chum salmon escapement goal and expected long term production potential for major spawning systems in the Wide Bay and Cape Igvak Sections.

Escapement Goals		Average Return/ Spawner	Harvest Potential
Wide Bay Section			
Pink Salmon	60,000-210,000	(3.5)	150,000-525,000
Chum Salmon	19,000 -57,000	(2.8)	34,200-102,600
Cape Igvak Section			
Pink Salmon	27,000-81,000	(3.5)	67,500-202,500
Chum Salmon	10,000-30,000	(2.8)	18,000 -54,000

Coho spawning populations are present in the Wide Bay and Cape Igvak Sections, however the escapement database is very limited due to the cost and adverse weather conditions associated with late season aerial surveys.

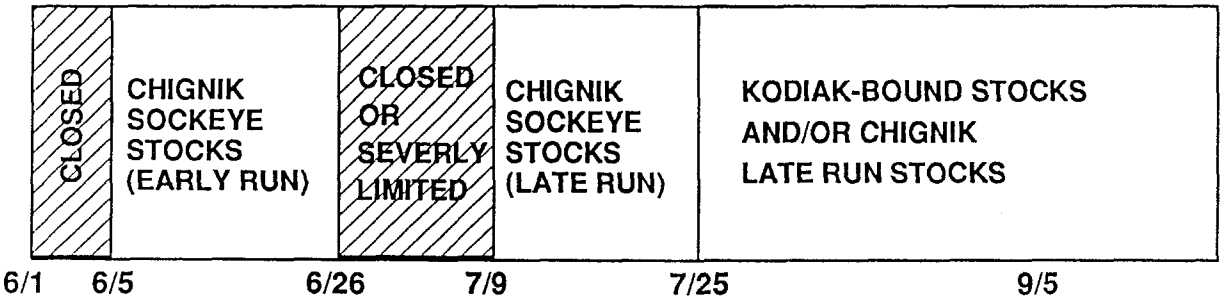
Appendix A.1. Map detailing Cape Igvak Section.



Appendix A.2. A diagram of the chronological requirements of the Cape Igvak Management Plan along with the biological and allocation criteria.

THE REGULATORY REQUIREMENTS OF THIS PLAN ARE DESCRIBED IN THE 1992 COMMERCIAL FINFISH REGULATION BOOK. A DIAGRAM OF THE CHRONOLOGICAL REQUIREMENTS OF THIS PLAN IS SHOWN BELOW ALONG WITH THE BIOLOGICAL AND ALLOCATION CRITERIA OF THIS PLAN. THE HARVEST PROJECTIONS FOR THE CHIGNIK SOCKEYE RETURN INDICATES THAT THE EARLY-PRODUCTION WILL BE ABOVE AVERAGE AND THAT THE LATE PRODUCTION SHOULD CONTINUE AT OR ABOVE AVERAGE. THE CAPE IGVAK HARVEST PROJECTIONS FOR THE 1992 SEASON ARE SHOWN ON PAGE 3 OF THIS DOCUMENT.

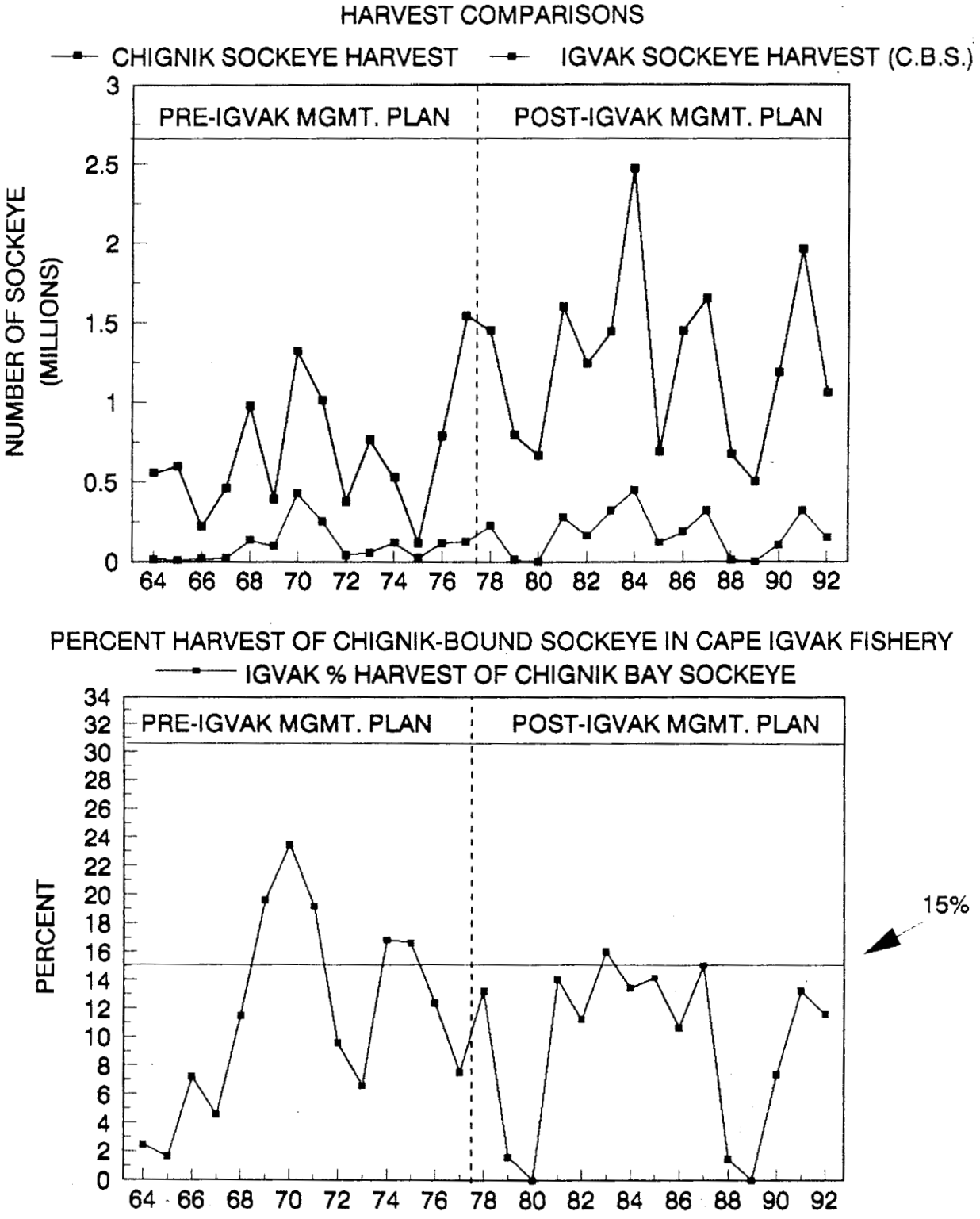
MANAGEMENT CHRONOLOGY FOR CHIGNIK-BOUND SOCKEYE AND KODIAK SALMON



BIOLOGICAL AND ALLOCATIVE CRITERIA FOR MANAGING THE CAPE IGVAK FISHERY ON CHIGNIK-BOUND SOCKEYE

BIOLOGICAL REQUIREMENTS			ALLOCATIVE REQUIREMENTS		
REGULATION 5AAC 18.360	ESCAPEMENT NEEDS CHIGNIK (EARLY RUN)	ESCAPEMENT NEEDS CHIGNIK (LATE RUN)	REGULATION 5AAC 18.360	CHIGNIK MINIMUM HARVEST	IGVAK %
(a) (b) (c)	THROUGH 6/30 350,000-400,000	-	(a)	EXPECTATIONS OF LESS THAN 600,000	CLOSED
-	-	-	(b)	EXPECTATIONS OF 600,000 ARE IN DOUBT	CLOSED
(a) (b) (c)	-	THROUGH 7/30 195,000-200,000	(c)	EXPECTATIONS OF 600,000 OCCUR	OPEN TO ACHEIVE 15%
-	-	-	(d)	CHIGNIK SALMON % INTERCEPTION CALCULATIONS	80% OF CATCH AT IGVAK ARE CHIGNIK SOCKEYE
-	-	-	(e)	ALLOCATION PERIOD 600,000	6/5 - 7/25 % NOT APPLICABLE
(f)	FROM JUNE 26 - JULY 9 CAPE IGVAK SECTION CLOSED OR SEVERLY LIMITED UNTIL CHIGNIK LAKE RUN EVALUATED		-	-	-
-	-	-	(g)	-	ONE DAY ADVANCE NOTICE
	400,000	250,000		600,000 MINIMUM	15 %

Appendix A.3. Comparison of the Cape Igvak and Chignik commercial harvest pre and post Cape Igvak Management Plan.



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Appendix A.4. Harvest of Chignik bound sockeye salmon in the Chignik, Cape Igvak, and Southeast District Mainland Areas[a] from 1964-1992.

Year	Chignik Area Catch	Chignik Area Percent	Cape Igvak Catch	Cape Igvak Percent	Southeast District Mainland Area Catch	Southeast District Mainland Area Percent	Total
1964[b]	556,890	90.57	14,980	2.44	43,021	7.00	614,891
1965	599,553	89.94	11,021	1.65	56,020	8.40	666,594
1966	219,794	87.99	18,003	7.21	12,011	4.81	249,808
1967	462,000	91.48	23,014	4.56	20,021	3.96	505,035
1968	977,382	82.53	135,951	11.48	70,959	5.99	1,184,292
1969	394,135	78.96	97,982	19.63	7,013	1.41	499,130
1970	1,325,734	72.51	434,394	23.76	68,181	3.73	1,828,309
1971	1,016,136	76.95	253,044	19.17	51,272	3.88	1,320,452
1972	378,218	87.99	33,865	7.88	17,752	4.13	429,815

1964-72 catch and percentage figures are total for the entire season. Catch figures and percentages after 1972 are only through July 25.

1973[c]	769,256	89.01	57,348	6.64	37,613	4.35	864,217
1974	530,278	74.12	122,071	17.03	64,564	9.01	715,444
1975	115,984	81.78	23,635	16.67	2,205	1.55	141,824
1976	792,024	83.08	117,926	12.37	43,356	4.55	953,306
1977	1,547,285	90.61	128,852	7.55	31,498	1.84	1,707,635
1978[d,e]	1,454,389	85.38	227,014	13.33	21,952	1.29	1,703,335
1979[f]	794,504	80.30	139,550	14.10	55,352	5.59	989,406
1980	670,001	91.33	32	0.00	63,570	8.67	733,603
1981	1,606,300	79.88	282,727	14.06	121,870	6.06	2,010,897
1982	1,250,768	84.46	167,401	11.30	62,767	4.24	1,480,936
1983	1,450,832	72.68	318,048	15.93	227,392	11.39	1,996,272
1984	2,474,405	73.93	449,372	13.43	423,068	12.64	3,346,845
1985[g]	696,169	79.91	123,627	14.19	51,421	5.90	871,217
1986	1,456,729	82.64	188,017	10.67	118,006	6.69	1,762,752
1987	1,659,915	78.02	321,120	15.08	146,886	6.90	2,127,921
1988	678,912	95.70	11,218	1.58	19,320	2.72	709,450
1989	502,477	99.12	0	0.00	4,485	0.88	506,962
1990	1,196,599	83.51	107,706	7.52	128,599	8.97	1,432,904
1991[h]	1,966,986	80.48	324,329	13.27	152,714	6.25	2,444,029
1992[i]	1,066,732	81.25	152,358	11.60	93,845	7.15	1,312,935

a The Cape Igvak and Southeast District Mainland figures represent 80% of the total sockeye catches for those areas as it is estimated that roughly 80% of the sockeye caught in the Cape Igvak section and Southeast District Mainland Area are destined for Chignik.

b The data from 1964 - 1972 are based on total yearly catches. Prior to 1973, Cape Igvak and Southeast District Mainland fisheries were set by regulation to weekly fishing periods, usually 5 days per week. Time modifications were implemented when poor escapements occurred at Chignik.

c During 1973 through 1977 all three fisheries were managed on a day by day basis.

-Continued-

[d] From 1978 - 1991, the Cape Igvak Fishery Management Plan allocated 15 percent of the total sockeye catch destined for Chignik.

[e] During 1978, seining prior to July 11 was disallowed in the Southeast District Mainland. The set gillnet fishery was allowed to fish 3 days per week through July 10 after which the fishery was managed on the basis of local stocks.

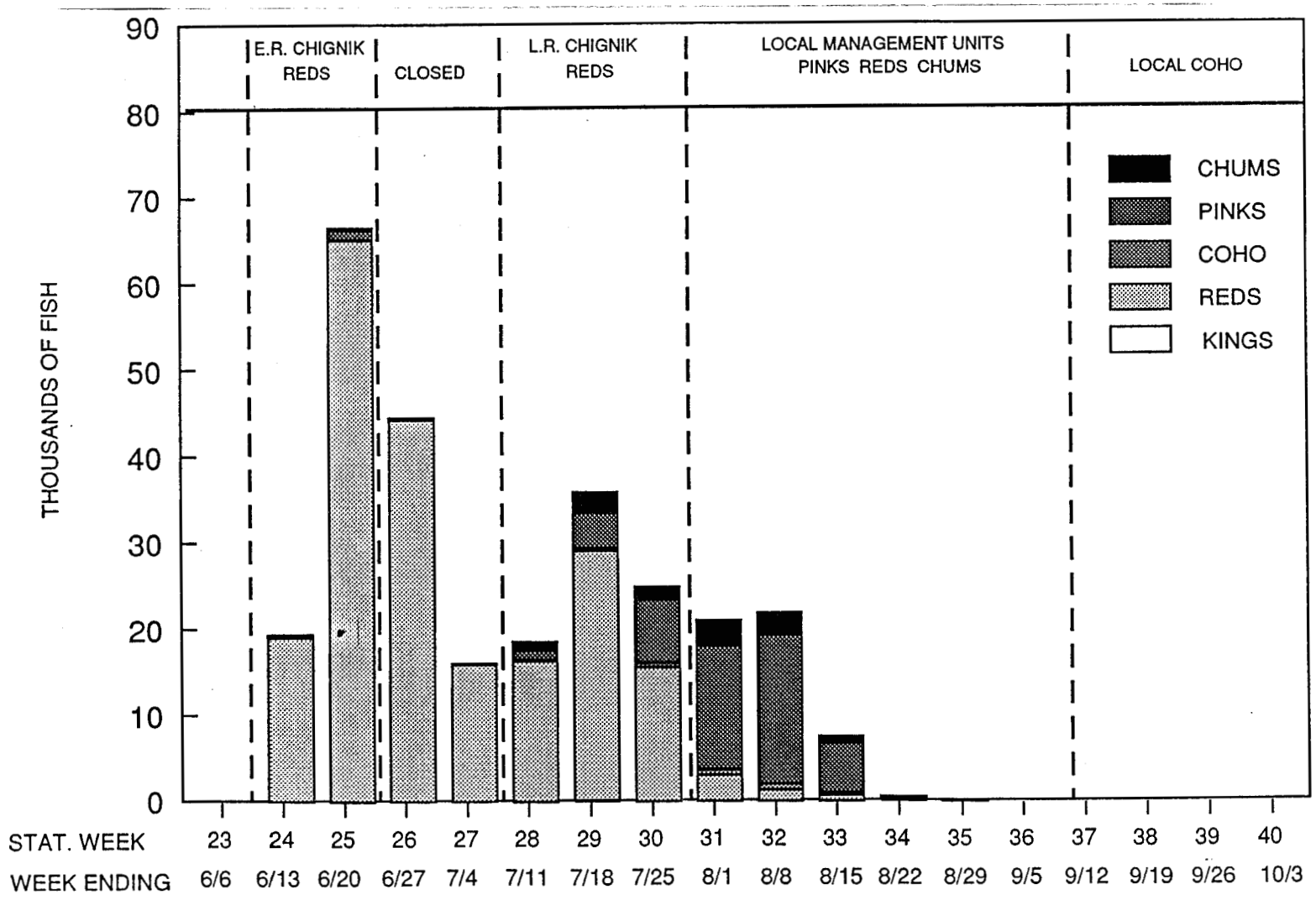
[f] During 1979-1984 and prior to July 11, fishing was allowed 5 days per week in the Southeast District Mainland Area (including Beaver Bay) with an estimated ceiling of 60,000 sockeye destined for Chignik. If the Chignik Area sockeye catch was 1,000,000 or more before July 11, the 60,000 ceiling was to be dropped.

[g] Beginning in 1985, Southeast District Mainland Area was placed on an allocation of 6.2 percent of the total estimated Chignik sockeye catch through July 25. After July 25, Southeast District Mainland Area is managed on a local stock basis. The allocation changed back to an even 6 percent beginning in 1988. Seining is still not allowed prior to July 11.

[h] Includes overescapement of 278,305 sockeye counted past the weir during the Chignik Area seiners' boycott (Jun 23 - Jul 4).

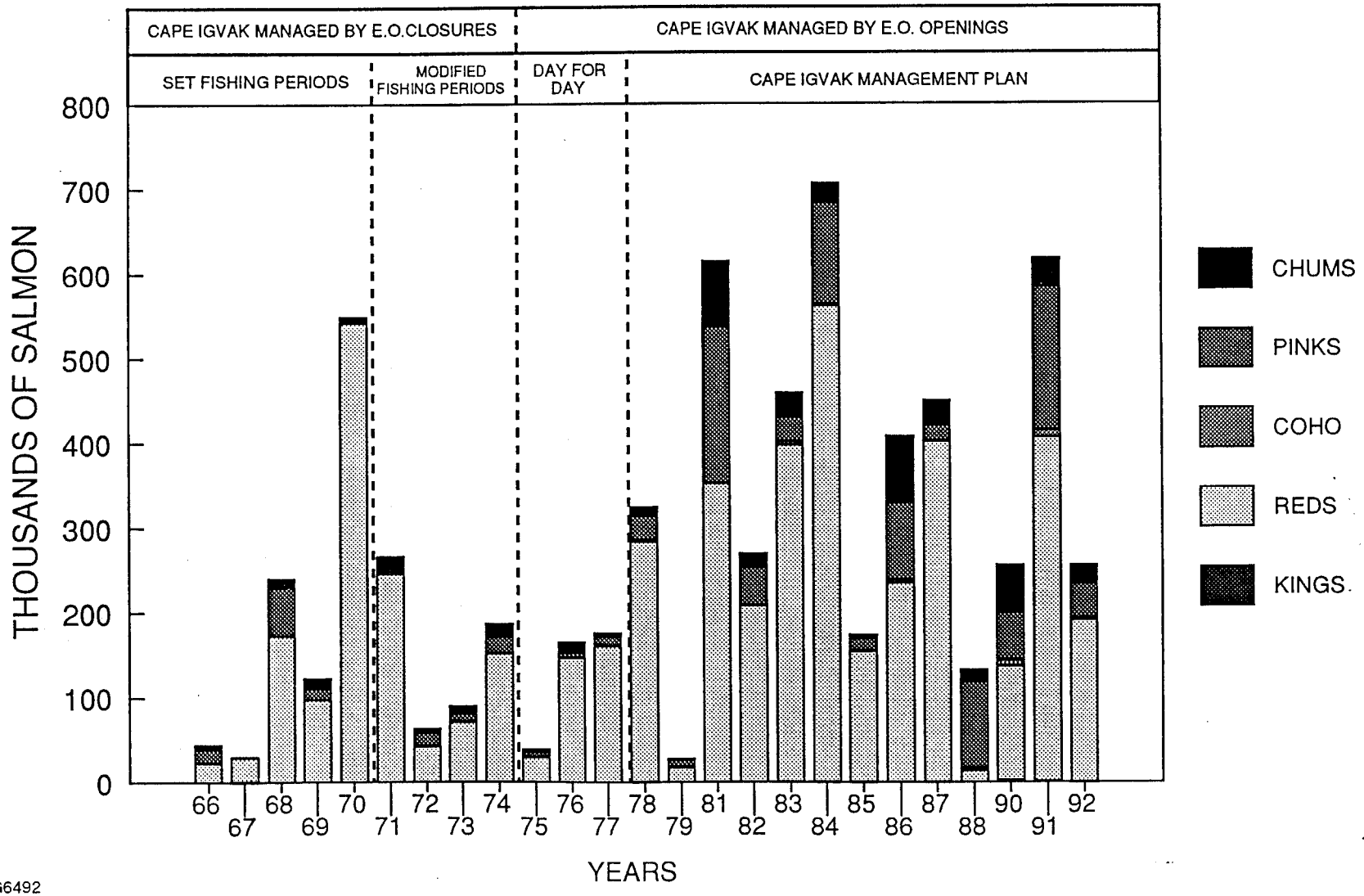
[i] Review of Orzinski Lake historical and current escapement records led the Board to redefine the Southeast District Mainland Management Plan. Beginning in 1992, the Southeast District Mainland fishery exclusive of the Orzinkie Bay was placed on an allocation of 7.0 percent of the total estimated chignik sockeye catch through July 25.

Appendix A.5. Historical average salmon harvest by species by week in the Cape Igvak Section, 1970-1992.



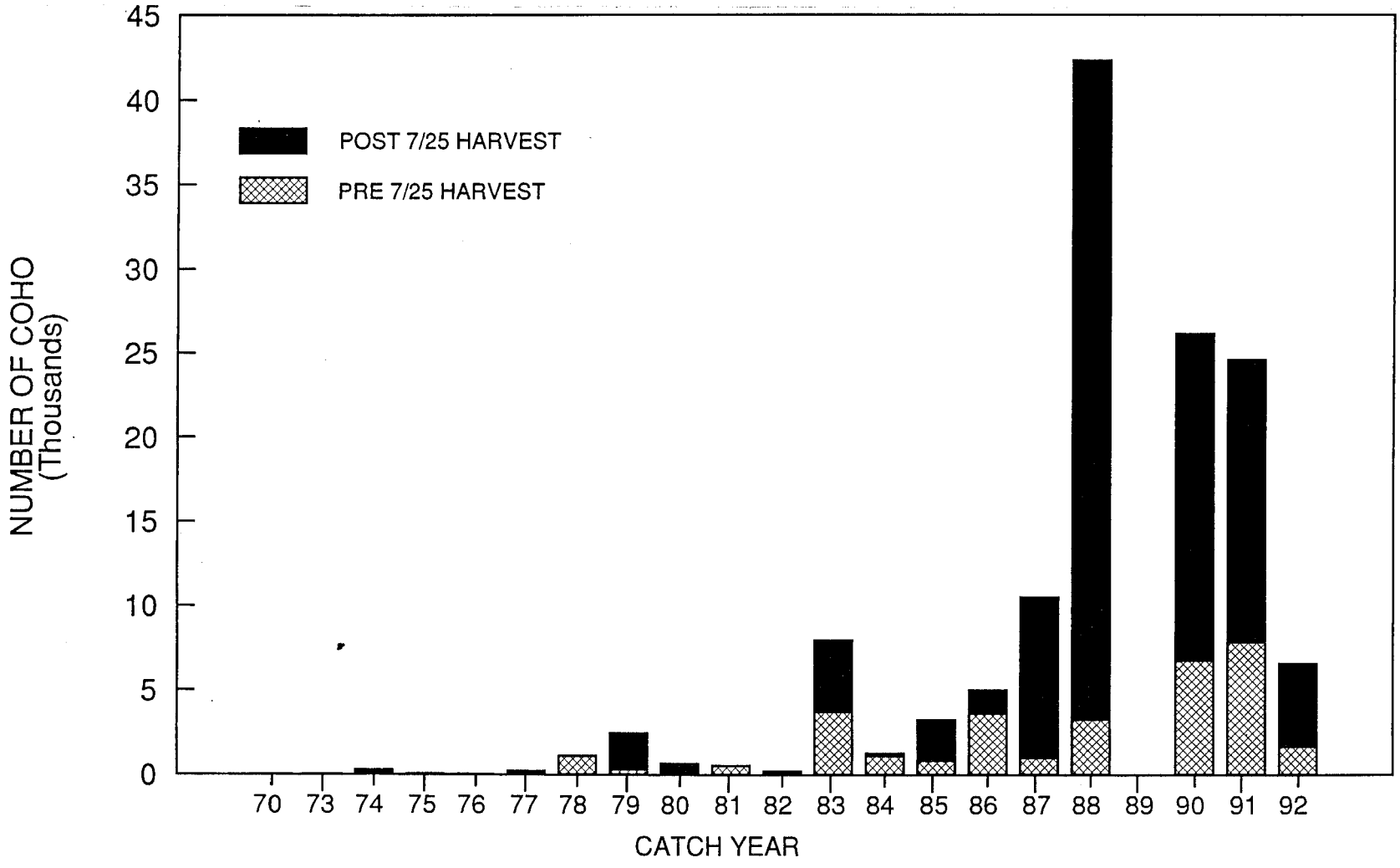
92-IG7092

Appendix A.6. Historical commercial salmon harvest in the Cape Igvak and Wide Bay Section for the period June 1 through July 25, 1964-1992.



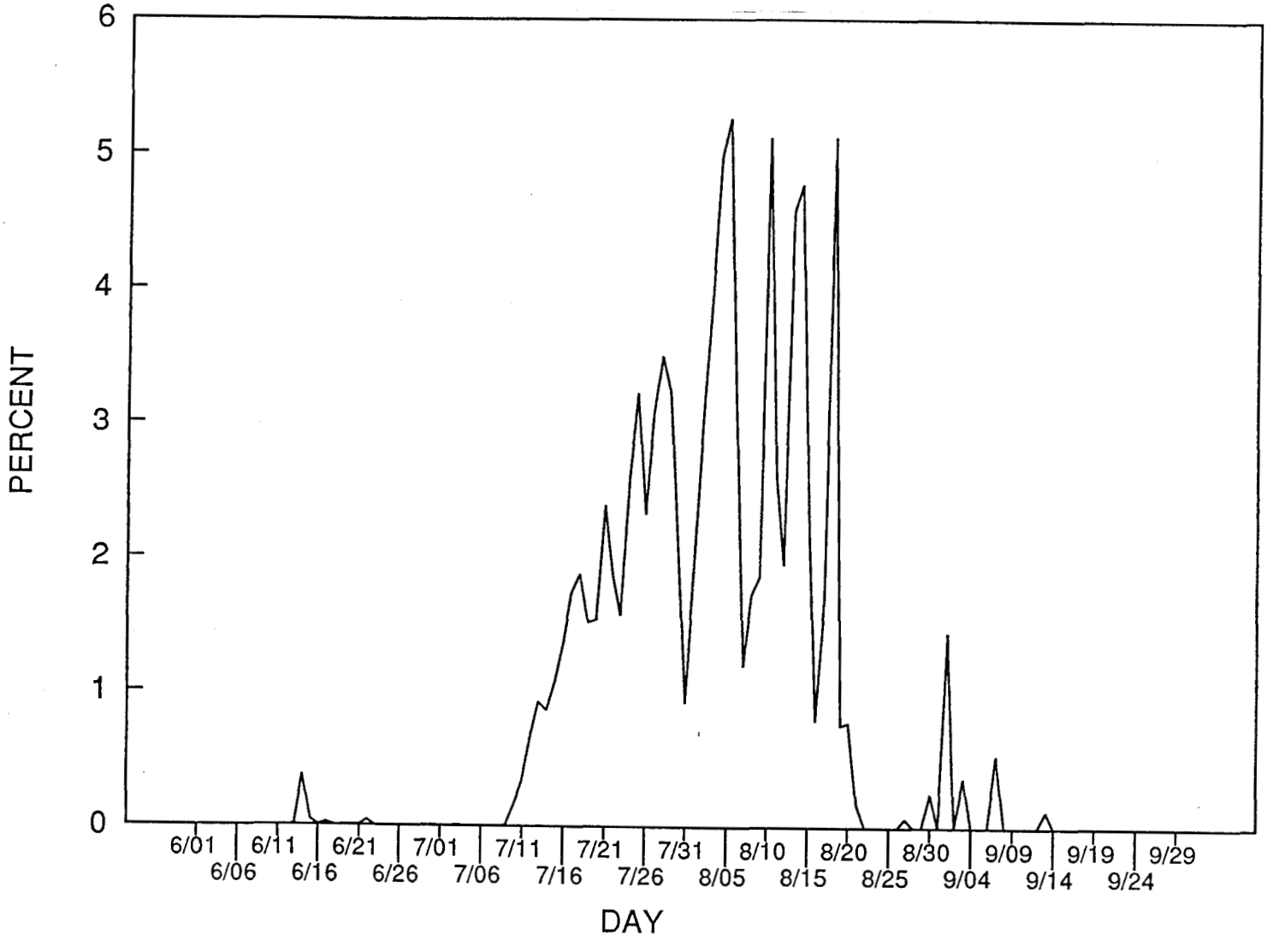
1-IG6492

Appendix A.7. Historical coho harvest in the Cape Igvak and Wide Bay Section pre July 25 versus post July 25 by year.



J1-CICOHO

Appendix A.8. Average coho harvest percentage harvest by day for the Igvak Section, 1979-1992.



J4-IGAVCO

Appendix A.9. Commercial coho salmon catches (thousands of fish) by management area, 1960-1992.

	Management Area								
YEAR	KODIAK	CHIGNIK	S. PEN	N. PEN	B. BAY	KUSKO	YUKON	N. SND.	TOTAL
1960	54	7	2	43	16	5	0	0	127
1961	28	3	10	24	20	5	3	14	107
1962	54	1	16	39	39	12	23	9	193
1963	57	9	16	40	41	16	5	17	201
1964	35	2	13	36	36	28	2	0	152
1965	26	9	34	34	8	12	0	2	125
1966	67	15	6	37	33	22	19	6	205
1967	10	9	2	46	53	58	11	3	192
1968	56	2	31	64	93	154	13	7	420
1969	48	18	10	49	81	110	15	7	338
1970	66	15	32	26	14	62	13	4	232
1971	22	14	16	8	12	10	12	3	97
1972	16	19	8	9	13	23	22	1	111
1973	3	22	6	26	57	152	36	9	311
1974	13	12	9	24	43	179	16	2	298
1975	23	53	0	28	46	109	2	5	266
1976	23	35	0	26	26	112	5	7	234
1977	27	17	2	34	107	263	38	4	492
1978	48	20	61	63	94	249	26	7	568
1979	140	99	357	113	294	308	17	31	1,359
1980	139	119	274	128	348	327	8	30	1,373
1981	121	78	162	155	376	278	23	32	1,225
1982	344	303	256	238	619	567	37	92	2,456
1983	157	61	128	75	128	249	13	50	861
1984	229	110	310	199	590	830	81	68	2,417
1985	284	191	173	168	163	382	57	22	1,440
1986	167	115	236	164	177	736	47	36	1,678
1987	195	150	225	172	70	479	0	24	1,315
1988	303	370	505	234	187	624	86	37	2,346

-Continued-

Appendix A.9. (page 2 of 2)

YEAR	Management Area								
	KODIAK	CHIGNIK	S. PEN	N. PEN	B. BAY	KUSKO	YUKON	N. SND.	TOTAL
1989	3	60	427	237	242	538	70	44	1,621
1990	294	130	306	193	100	445	45	57	1,570
1991	325	167	313	218	118	557	107	54	1,859
1992	280	311	402	194	191	666	8	105	2,157
Avg. 1960-92	111	77	132	95	134	260	28	24	861
Avg. 1960-78	36	15	14	35	44	83	14	6	247
Avg. 1979-92	213	162	291	178	257	499	43	49	1,692

APPENDIX B

Summary of the Alitak Bay District commercial salmon fishery,
Kodiak Management Area, 1992

Appendix B. Summary of the Alitak Bay District commercial salmon fishery, Kodiak Management Area, 1992.

INTRODUCTION

The Alitak Bay District is one of the seven commercial salmon fishing districts in the Kodiak Management Area (KMA). Both seine and gillnet gear are allowed to fish this district, though it is separated into set gillnet only and seine only areas. The Alitak District has two of the KMA's major sockeye salmon producing systems within it's borders, as well as three minor sockeye systems. This district is currently managed under the guidelines of a Board of Fisheries (BOF) approved regulatory management plan.

Location

The Alitak Bay District is located at the southern end of Kodiak Island, extending from Cape Trinity, on the Aliulik Peninsula, to the latitude of Low Cape, on the southwest side of Kodiak Island (Appendix B.1). Within these bounds are included Humpy Cove, Portage and Sulua Bays, Deadman Bay, Alitak Bay, Moser Bay, Olga Bay, and the outside beach from Cape Alitak to Low Cape, which includes Sukhoi Lagoon.

History

Commercial fishing for salmon has a long history in this area, beginning with the Russians in the early 1800's. The first canneries were built in 1889, one in Moser Bay and one in inner Olga Bay. A cannery built in Alitak Bay near the village of Akhiok in 1918 is still in operation today. Sockeye salmon was the species which drew commercial interest to Alitak Bay, with the Upper Station Lakes and Akalura Lake being the major producers. Runs declined in the early 1900's, and pink salmon began to make up a considerable portion of the catch after 1924. Gear used at the time was primarily fish traps, plus a few large beach seines and gillnets. Since the 1930's commercial salmon fishing with gillnet gear in the Alitak District has been limited to set gillnets only in portions of outer Olga Bay and in Moser Bay (Appendix B.1). Purse seines were first allowed into Alitak Bay in 1933 when by regulation they were allowed to operate from Cape Trinity to Cape Alitak. Fish traps, previously allowed in specific sites in Alitak Bay were prohibited in 1959 when Alaska received statehood.

As competition for salmon resources increased stocks declined. Harvest control was virtually nonexistent prior to the White Act of 1924. Escapement goals of 50% of the runs were mandated, as determined by harvest reports and fish counting weirs on major systems. Closed water sanctuaries were established, and fixed weekly fishing periods and season lengths were

adjusted preseason to perceived run strengths. With little enforcement this was largely ineffective, and runs continued to decline or remain at depressed levels. With Alaska statehood came increased monitoring and enforcement, Emergency Order openings and closures based on actual returns, increased research of optimum spawning capacity, adjustments in escapement goals, and modifications in gear size and operation, all in the attempt to maximize the sustainable harvest.

SALMON RESOURCES

This district contains 30 known salmon streams, of minor to major production potential. All five specie of salmon migrate through this district, and spawn within streams in the district.

Chinook Salmon

Chinook salmon fry were planted in Frazer Lake and creek from 1965 through 1969. The introduction was successful and chinook salmon still return to the Frazer system. However, the size of the population remains small, with 340 individuals the highest recorded escapement (1985). Small numbers of chinook (less than 100) have long been harvested in the Alitak District, even in years prior to the Frazer introductions. The recent ten year average harvest is just over 400 chinook salmon (Appendices B.2 and B.3).

Coho Salmon

Coho salmon are known to spawn in 15 streams within the district. Sukhoi, Silver Salmon, Akalura, Upper Station, Dog Salmon, Deadman, Sulua, and Humpy Creeks all have viable, but relatively minor populations. Indexed coho escapements in the entire district seldom exceed 30,000 fish, though escapement monitoring late in the season is minimal. Harvests have increased in the last 10 years, likely due to increased competition for fishery resources, yet still average less than 30,000 coho salmon (Appendices B.4 and B.5).

Chum Salmon

Chum salmon escapements have been documented in 14 streams within the Alitak District. Sukhoi supports a large population (escapements in excess of 100,000 have been documented), and the returns to Dog Salmon, Deadman, Portage, and Northeast Sulua creeks can be significant (greater than 20,000). Harvests have fluctuated generally from 30,000 to over 100,000, averaging over 77,000 chum salmon for the last ten years (Appendices B.6 and B.7).

Pink Salmon

Pink salmon are generally the most numerous species and certainly the most wide spread, occurring in all 30 salmon streams. The largest producing systems are the Dog Salmon, Humpy, and Deadman Rivers. As with most pink salmon populations, survival and subsequent return of pink salmon to this district is highly variable. Over the last ten years these systems have exhibited an odd year dominance, with larger returns occurring in odd numbered years. The odd year average escapement since 1983 is over 830,000 pink salmon, and the odd year average harvest is near 1.2 million pink salmon. During the last ten years the even year pink escapement has averaged only 240,000 and the harvest only 350,000 pink salmon (Appendices B.8, B.9, and B.10).

Pink Salmon Escapement Goals

Escapement into most pink salmon systems is monitored by aerial survey. In the late 1980's minimum and desired escapement goals were documented for several major or representative pink salmon systems. These goals were meant to be a working range for management, such that accomplishment of escapements within these ranges should insure stable pink salmon production of a commercially viable magnitude. The effect of not achieving minimum escapement could result in significant, yet temporary, losses in commercial production, while the "biological integrity" of the affected stock should not be impacted. Goals are based on differential odd vs. even year production, as follows:

	Even Years	Odd Years
Dog Salmon River	50,000-150,000	60,000-180,000
Deadman River	40,000-120,000	60,000-180,000
Humpy River	70,000-210,000	90,000-270,000

It should be noted that the timing of the pink salmon return to the Dog Salmon River varies considerably between odd and even years. On odd numbered years the highest pink escapement counts occur during the last week of July, while on even numbered years peak escapements occurs the last week of August.

Sockeye Salmon

Sockeye salmon are found in five streams in the Alitak District, with two relatively large producers (the Olga Lakes and Frazer Lake systems), and three smaller producing systems (Akalura, Silver Salmon, and Horse Marine systems). All five systems empty into Olga Bay (Appendix B.1). Historically, the Alitak District systems produced large numbers of sockeye salmon, and early catches were second only to those of the Karluk system. The Olga Lakes system (Upper Station) and Akalura were the major producers, and Horse Marine and Silver Salmon were of lessor importance. Production of this area declined drastically though the late

1960's, to the point where only Upper Station was a major contributor to the commercial catch. The Upper Station stocks are split into two distinct components; an early run passing through the district prior to July 15, and a late run migrating through after July 15. This system is difficult to manage due to the timing of the run components, with the late run, the largest portion of the Upper Station return, occurring during the pink salmon season.

Currently, a second major sockeye producer is the Frazer Lake system. Sockeye salmon were introduced into the previously barren Frazer Lake from 1951 through 1971. A fishpass, constructed in 1962, allows sockeye to climb above barrier falls near the mouth of the lake. This introduction is considered very successful, and since the early 1970's has been self-sustaining. This stock is essentially an early run (prior to July 15). Minor producers at this time are the Akalura, Silver Salmon, and Horse Marine systems.
Major restrictions in fishing time were employed in the early 1970's to help build the Alitak sockeye stocks. There were complete closures of this district during the month of June to aid escapements. Since that time the stocks have rebounded. The average sockeye harvest since 1982 has been almost 900,000, with the harvest well over 1.0 million sockeye in 4 of the last 5 years (Appendices B.11 and B.12).

Sockeye Salmon Escapement Goals

Salmon escapement into major systems has been monitored with fish counting weirs. The first weir at Upper Station was installed in 1923. Counts of upstream migrant salmon have been made at the Frazer fishpass since 1962. In 1983, a weir was established on the lower portion of the system, on the Dog Salmon River. This allows for an immediate count of sockeye escapement into the river and allows assessment of salmon buildups (the fishpass is several days migration time above the commercial fishery). With increased knowledge of these system's response to various escapement levels, and their production potentials, escapement goals have been modified. In the late 1970's the sockeye escapement goal for the Upper Station systems was set at 180,000 based on historic production levels. In 1983 the goal was raised to 250,000 sockeye. In 1988, based on better knowledge of the lakes production potential, the target escapement goal was raised to 275,000 sockeye, and a minimum goal of 200,000 sockeye salmon established. The escapement goal is split between early and late runs, with 50,000 to 75,000 sockeye desired prior to July 15, and 150,000 to 200,000 sockeye desired between July 16 and September 15. Similarly, for the Frazer system the escapement goals have changed with increased knowledge. In 1975 based on estimates of the available spawning habitat of Frazer Lake and it's tributaries, and on assumptions of a desired spawner density, the escapement goal was set at 350,000 to 400,000 sockeye salmon. It wasn't until 1980, when stocks had built significantly, that this goal was first met. However, the population did not respond as expected, with lower than expected returns coming from the large escapements. The goal was lowered to between 200,000 to 275,000 sockeye. In 1988, upon further review of escapements and subsequent returns by ADF&G management and research staffs, the goal was reduced to 140,000 to 200,000 sockeye, with an escapement of 140,000 sockeye being the targeted escapement goal.

MANAGEMENT

ADF&G management staff in Kodiak attempts to assure that stock specific escapement requirements are met while providing that surplus fish are harvested throughout the run in the traditional harvest areas. The overlap in timing of returns of various runs, and the differential rates of returns of each species and system makes it extremely difficult to manage each stock on a maximum sustained yield basis. Because of these constraints it is necessary to identify the major systems and target species, and manage the fisheries for these particular key runs, rather than for each individual stock. The complexity of managing for several salmon producing systems with various run timings, and the involved fisheries on these stocks necessitates a detailed overall management plan.

Stock specific abundance patterns and migratory timing information when integrated into inseason management increases the likelihood of achieving established escapement goals. There has been extensive research into determining the relative strength and timing of these various stocks as they pass through the district. Tagging studies were conducted in 1967 and 1968, and a combined tagging and scale pattern analysis study was conducted in the Alitak District in 1981. Beginning in 1986, the ADF&G research staff has conducted a test fishery at Chip Cove, near the narrows leading into Olga Bay. Scale patterns of the sockeye salmon caught are analyzed to identify the contributing stocks, and indices of the possible strength of each component of the runs are generated to aid inseason management.

Sections

The district is currently subdivided into eight sections (Appendix B.1). Two sections, the Humpy-Deadman Section and the Cape Alitak Section, are limited to fishing by seine gear only. The remaining sections are designated set gillnet only, prior to September 5. Five sections, the Dog Salmon Flats, Inner Akalura, Outer Akalura, Outer Upper Station, and Inner Upper Station Sections, are all normally closed to fishing, and open only if salmon well in excess of escapement requirements move past the traditional fishing areas.

Management Plans

Various harvest strategies have been applied to the salmon resources of the Alitak Bay District (Appendix B.13). As noted earlier, in the early 1970's there was a complete closure of the district during June, to allow Frazer and Upper Station stocks to build. In the late 1970's a Moser/Olga Bay Management Plan was formulated by ADF&G area biologists. In 1978, the preseason plan allowed for a minimum of two day fisheries in the district during June (typically near June 14 and 22). However, only the set gillnet sections were opened. In 1983, with the Frazer stock developing well, the plan allowed for equal fishing time during June for the Alitak District gillnet and seine areas, and also allowed for the possibility of limited gillnet openings

of the normally closed sections in the event of escapements in excess of established goals. Beginning in 1984 a more aggressive harvest strategy was implemented by ADF&G. A June 9th "test fishery" was begun, allowing an early commercial fishing period for the purpose of assessing the strength of the early sockeye returns.

In 1987, the department proposed to the Board of Fisheries that the existing harvest strategy for the Alitak District be formalized into a regulatory management plan, to detail the key species and targeted stocks which are managed for within each section throughout the season (Appendix B.14). This plan was adopted by the Board of Fisheries, and in 1988 the Alitak Bay District Salmon Management Plan went into regulation (Appendix B.15). It is the stated intent that salmon be harvested in the traditional fisheries located in the Humpy-Deadman, Cape Alitak and Moser-Olga Bay Sections.

This plan basically sets up two management strategies, for even vs. odd numbered years. In even numbered years the fishery is managed during June 9 through July 15 based on sockeye salmon escapement to the Frazer Lake/Dog Salmon River system; from July 16 through August 25 for sockeye salmon escapement to Upper Station and pink salmon escapement to the Dog Salmon River; and from August 26 based on sockeye and coho salmon escapements to the district streams. Odd numbered years are managed similarly, except that during July 16 through August 9 the fishery is managed specifically for pink salmon escapement into the Dog Salmon River. For the Frazer Lake return the department uses qualitative analysis of inseason run timing, catch per unit effort of test and commercial fisheries, species composition of the catches, and aerial survey and weir escapement counts to open and close the fishery by Emergency Order, within the guidelines of the management plan.

Gear Restrictions

An evolution of regulations has also occurred in regards to restrictions on fishing gear allowed in the Alitak District (Appendix B.16).

Seine

Seine gear regulations on net length and gear operation have changed little in the last ten years. Purse seines must be between 100 and 200 fathoms in length and must be between 100 and 325 meshes deep. Beach seines must be between 100 and 225 fathoms in length and must be at least 100 meshes deep. Mesh size may not exceed seven inches. A lead of no more than 100 fathoms may be used with a purse seine, but the aggregate length of purse seine and lead may not exceed 250 fathoms. Prior to 1971 there was a regulation on the books which prohibited the operation of a seine within 500 feet of stationary (set gillnet) gear. In 1985, a regulations was passed which prevents a seine being used as a stationary trap. In 1990 the maximum depth limit for purse seines was set at 325 meshes.

Set Gillnet

For the set gillnet fishery more changes in regulations have taken place, and some regulations specific to gear operating in the Alitak District have been adopted. Prior to 1983 the aggregate length of set gillnets used by an individual could not exceed 150 fathoms, and no more than two set gillnets could be operated by the individual holding the gear license. Set gillnets were required to be operated in a straight line, with no more than 25 fathoms of each net used as a single hook. Seine webbing could be used on the inshore end of the set net as a lead, but only between high and low water marks. The inshore end of the set gillnet was required to be attached to the shore above the mean low water mark. Further, it was stated in regulation that no part of a set gillnet could be placed or operated within 900 feet of any part of another set gillnet. In 1983, a 25 fathom hook in any configuration was allowed.

In 1985 many modifications to gillnet operations were passed into regulation. "Joint venture" set net operations were first allowed. This essentially allows two permit holders to combine their gear, whereby three gillnets, of no more than 150 fathoms in length each, could be operated. Also in 1985 it was specified that setnet attachment points must be 900 feet apart and cannot be attached inside closed waters. Further, it was added that the shoreward end of the set gillnet must be attached to the beach above the lowest tide of the day. Regulations on gillnet leads were passed that specified differences for gear operated in the Moser-Olga Bay Section of the Alitak Bay District. It was specified that seine webbing on the shoreward end of a set gillnet may not extend more than 50 fathoms seaward of the beach at lowest tide of the day, except for Moser-Olga Bay Section where seine webbing may be used only from the high tide mark seaward, and no portion of the seine web may be in water deeper than five feet during the lowest tide of the day.

In 1988 the Board of Fisheries again passed a number of set gillnet regulations. It was determined that the shoreward end of a set gillnet must be attached to a point of land that is exposed at the lowest tide of the day or to a rock that is within five feet of the surface at the lowest tide of the day. A rock was defined as any naturally located or created geological formation that shows no evidence of having been located or created through man-made means. Further, it was passed that in the Moser-Olga Bay Section south of a line from Bun Point to a point on the opposite shore at 56°57'59" N. lat., 154°07'35" W. long. that seine webbing may be used only from high tide seaward, plus no portion of the seine webbing used can be in water deeper than five feet at lowest tide of the day, or the seine web lead length could not exceed 20 fathoms. It was further written into regulation that in the event of an opening in the normally closed sections of Olga Bay that there would be no minimum distance requirement between units of gear, but that no set net gear, including running lines, leads, anchors, or buoys could be in place in the water prior to the opening time.

Most recently, in 1990 the BOF passed into regulations the stipulation that in the Alitak District the distance from an attachment point to the shore end of the net is limited to the legal lead distance for that gear location. The aggregate length of set gillnets can not exceed 150 fathoms, and a maximum depth limit was placed on set gillnets of 125 meshes.

1992 SEASON SUMMARY

Preseason sockeye salmon forecasts, prepared by ADF&G research staff, had predicted a possible run of 1.08 million sockeye salmon to the Frazer system, with a harvestable surplus of 880,000 sockeye salmon. An additional 100,000 early run Upper Station sockeye salmon were forecasted, with 50,000 being surplus to escapement needs. If the forecasts proved correct an aggressive harvest strategy would be needed in June.

The 1992 commercial salmon season in the Alitak Bay District began on June 9, with a 33 hour fishing period. The June 9 sockeye salmon harvest was lower than any previous June 9 "test fishery" harvest, indicating a much weaker than anticipated run (Appendix B.17). However, the cumulative results from the Chip Cove test fishery throughout June indicated a relatively high passage rate of sockeye salmon, in excess of interim escapement requirements, into Olga Bay (Appendices B.18 and B.19). Sockeye salmon typically buildup on Dog Salmon Flats, and do not move right into the stream. It is intended to harvest surplus in the traditional areas, the Humpy-Deadman, Cape Alitak, and Moser-Olga Bay Sections, rather than allowing excess escapement to build on the flats. Based on test fishery estimates of the number of sockeye salmon that could have moved into Olga Bay, and on estimates of the sockeye salmon buildup on the flats, an 81 hour fishery was allowed beginning June 17. Sockeye salmon escapement picked up about June 21. Another 81 hour period was allowed beginning June 23, and a 153 hour period was allowed from July 2 through July 8. By this time it had become obvious that the Frazer run, and the early Upper Station run, had come in much weaker than anticipated, and that the Chip Cove test fishery had over estimated the passage of fish into Olga Bay. Commercial fishing was closed for a week, and the sockeye salmon escapement into the Frazer system neared the minimum goal. However, a significant increase in the number of sockeye salmon passing into Olga Bay was documented by the test fishery, and age composition data indicated that the majority were bound for the Frazer system. To limit the possibility of exceeding the escapement goal a 57 hour fishery was allowed, beginning July 15. Sockeye salmon escapement was contained to just over the 200,000 goal for the Frazer, but fell well short for the early Upper Station run, with only 19,100 early run sockeye salmon moving into the Olga Lakes.

Beginning approximately July 16, management for the Cape Alitak and Moser-Olga Bay Sections is directed at the late run Upper Station sockeye stocks and at the pink salmon returns to the Dog Salmon, and for the Humpy-Deadman Section at local pink salmon stocks. The preseason forecast for late run Upper Station sockeye predicted a total run of 300,000 sockeye, with a potential harvest of about 125,000 sockeye. It was noted that a larger than predicted return of age 0.2 fish could show in the late run. A large number of age 0. smolt left the system in 1990, and it was felt reasonable to believe that the forecast estimator for the late Upper Station run could be low. The pink salmon forecast for the Alitak Bay District indicated a very poor run in 1992. The harvestable surplus was predicted to be only 200,000 pink salmon, and was expected to be taken during fisheries targeting late run sockeye salmon.

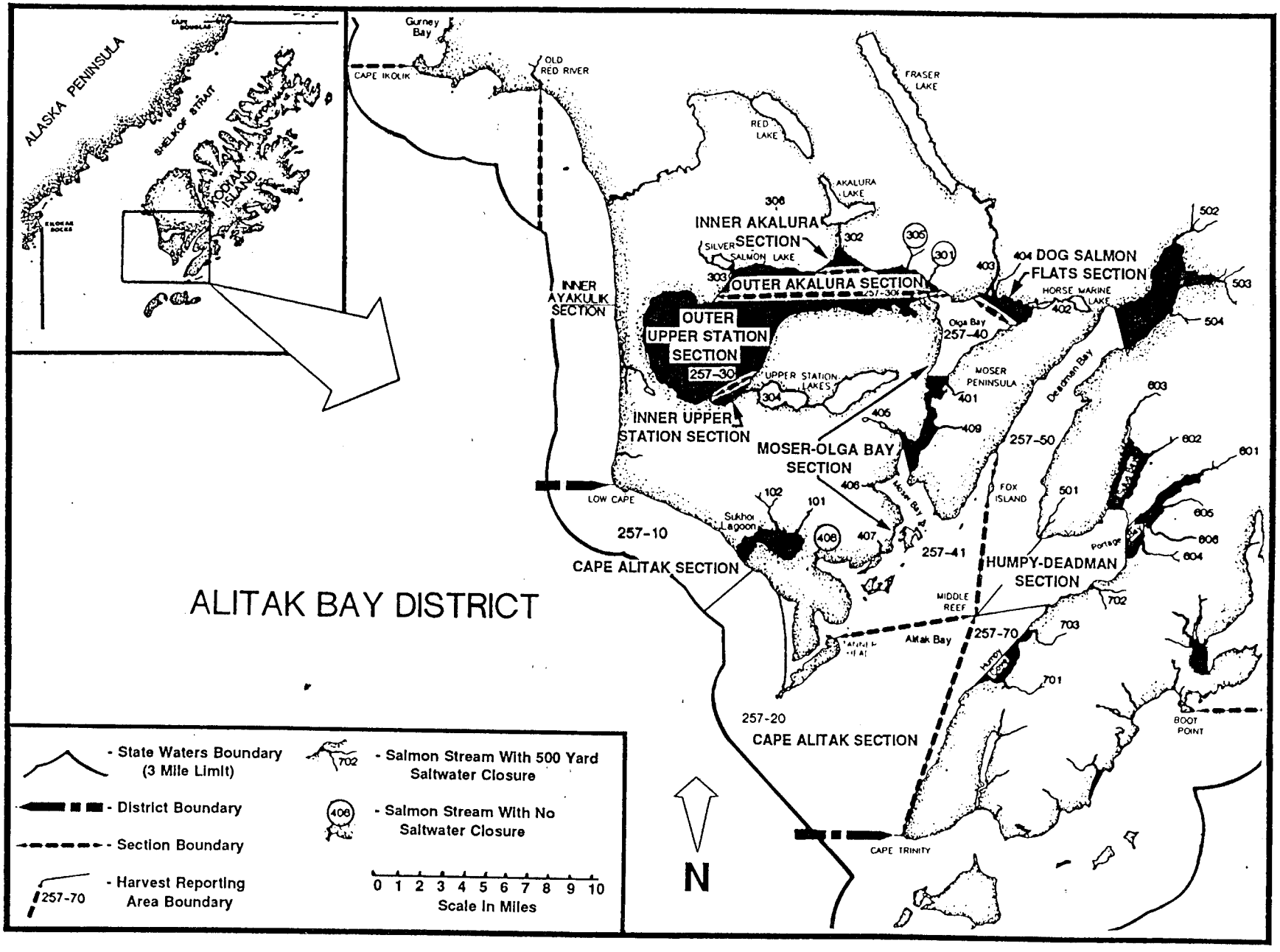
Based on the forecasted return to Upper Station an 81 hour fishing period was allowed on July 20. The Humpy-Deadman Section remained closed due to expected poor returns of pink salmon to local streams. The harvest during this fishing period was fairly good, and fishing appeared

to be improving in the outside areas near the end of the period. Another 81 hour period was allowed, beginning July 27. Sockeye escapements to Upper Station did not improve as expected, and the pink return appeared to be even less than predicted, so all sections closed on July 30, and did not reopen until August 20. At that time the escapement through the Upper Station weir was only 125,300 sockeye (well below the goal of 150,000 to 200,000), but the sockeye escapement to the Akalura system was quickly approaching the targeted goal of 40,000. The Alitak Bay District Salmon Management Plan specifies that the Akalura Sections, normally closed to commercial fishing, may be opened only if the desired escapement goal is expected to be exceeded. The rate of escapement and presence of a large buildup of salmon in Cannery Cove near the mouth of Akalura Creek required a commercial opening, but there were concerns for the possible interception of Upper Station bound sockeye, which are known to migrate along the north shore of Olga Bay. The opening was limited to 9 hours in the Inner Akalura Section only. By August 22, escapement of sockeye into Upper Station Lakes had exceeded the minimum goal of 150,000, and it was felt that the desired goal of 200,000 should be achieved. Commercial fishing in the Cape Alitak and Moser-Olga Bay Sections opened August 22 and remained open for the rest of the salmon season. The Humpy-Deadman Section was finally opened on September 11 to allow the harvest of local coho salmon stocks.

In 1992, 140 individual seine permitees and 79 gillnet permitees made commercial salmon landings from the Alitak Bay District. Overall 644,610 salmon were taken in the district, split almost evenly between the gear types (Appendix B.20). The commercial sockeye salmon harvest was 525,158 fish. This is above the average harvest since 1970, when stocks started to rebuild, but is only about 60% of the recent ten year average sockeye harvest. Approximately 47% of the sockeye were taken by seine gear, and 53% taken by gillnet gear. The gillnet catch can be further broken down by the area of harvest. Gillnetters in Moser Bay harvested 15%, and those fishing in Olga Bay harvested 38% of the sockeye. These percentages are all within the range of the past ten years (Appendix B.21). Escapement goals were met for the Frazer, late Upper Station, and Akalura stocks, but fell well below minimums for the early Upper Station sockeye stocks.

The 1992 Alitak Bay District pink salmon run came in well below forecast. The harvest was only 59,268 fish, less than the average of the last 5 even years of 350,400 pink salmon (Appendix B.20). Seine gear took 72% and gillnet 28% of the pink harvest. Escapement into the Dog Salmon and Deadman Rivers was below the minimum goals, but overall the pink escapements met the minimum goal for the district. Chinook, chum, and coho salmon escapements were all above minimum goals. The harvest of 1,056 chinook was better than the last ten years average. The harvest of 24,548 coho was near the past ten year average. The harvest of 34,580 chum salmon was well below the last ten years average.

Appendix B.1. Map of the Alitak Bay District, Kodiak Management Area, 1992.

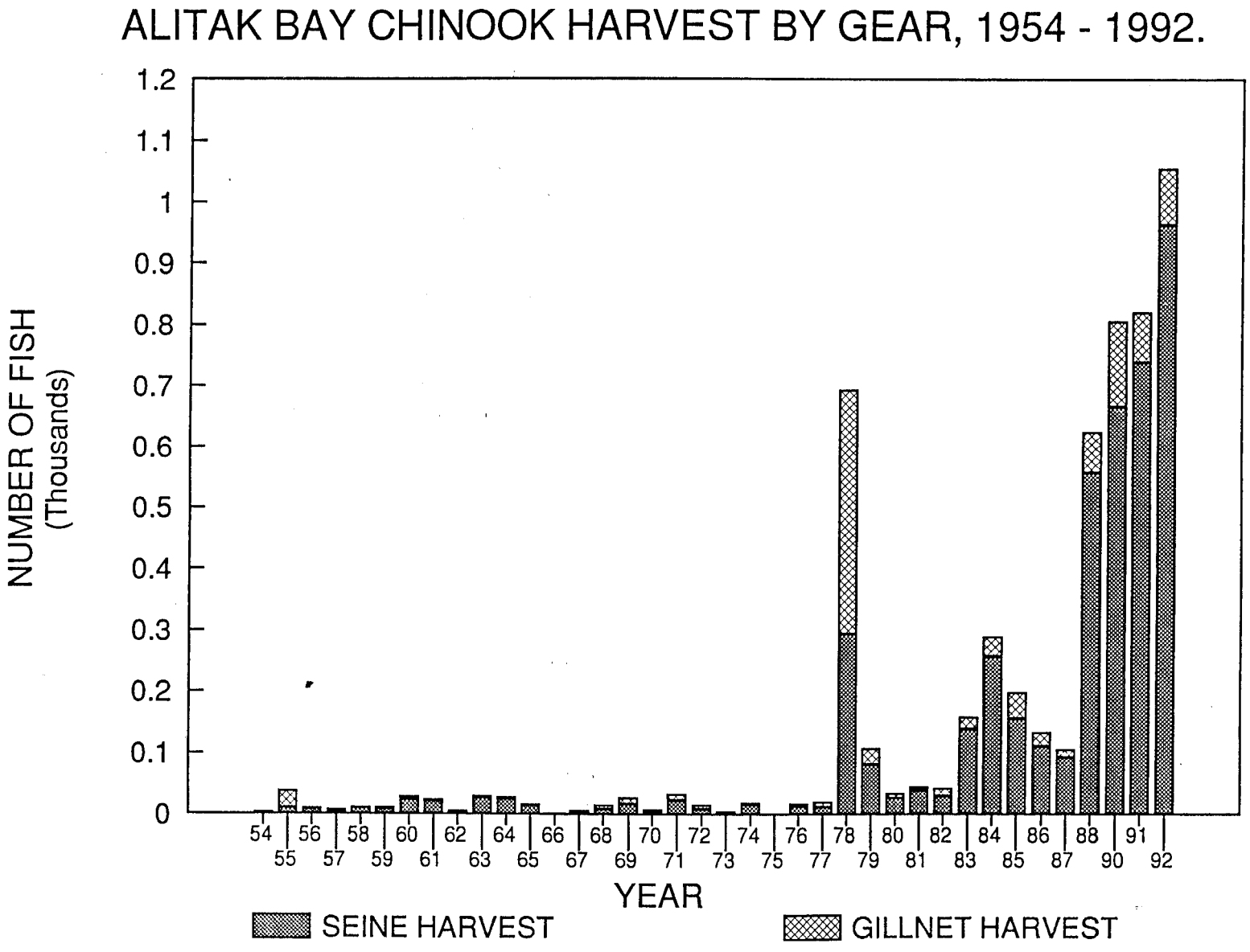


Appendix B.2. Commercial chinook salmon harvest, by gear, Alitak Bay District, Kodiak Management Area, 1954-1992.

Year	SEINE PERMITS	SEINE HARVEST[a]	SEINE PERCENT	GILLNET PERMITS	GILLNET HARVEST[a]	GILLNET PERCENT	TOTAL HARVEST
1954		2	67		1	33	3
1955		10	26		28	74	38
1956		9	90		1	10	10
1957		6	86		1	14	7
1958		11	100		0	0	11
1959		9	82		2	18	11
1960		24	83		5	17	29
1961		22	96		1	4	23
1962		4	80		1	20	5
1963		28	93		2	7	30
1964		26	90		3	10	29
1965		15	94		1	6	16
1966		1	50		1	50	2
1967		6	100		0	0	6
1968		9	56		7	44	16
1969		17	63		10	37	27
1970		4	50		4	50	8
1971		23	70		10	30	33
1972		9	60		6	40	15
1973		2	50		2	50	4
1974		16	84		3	16	19
1975		0	0		0	0	0
1976		13	72		5	28	18
1977	75	12	60	55	8	40	20
1978	166	294	42	61	400	58	694
1979	133	82	76	62	26	24	108
1980	88	27	79	68	7	21	34
1981	97	39	87	66	6	13	45
1982	104	30	70	74	13	30	43
1983	157	140	88	80	19	12	159
1984	70	258	89	70	32	11	290
1985	117	157	79	75	42	21	199
1986	146	111	83	79	23	17	134
1987	151	93	89	73	12	11	105
1988	122	558	89	81	66	11	624
1990	156	667	83	91	140	17	807
1991	187	740	90	86	81	10	821
1992	140	964	91	79	92	9	1,056
AVERAGES:							
1954-92		28	75		28	23	145
1977-92	127	64	80	73	64	20	343
1982-92	135	52	85	79	52	15	424

[a] Harvest in numbers of fish. Data from ADF&G Annual Management Reports and Fish Ticket Summaries.

Appendix B.3. Commercial harvest of chinook salmon in the Alitak Bay District, by gear, Kodiak Management Area, 1954-92.

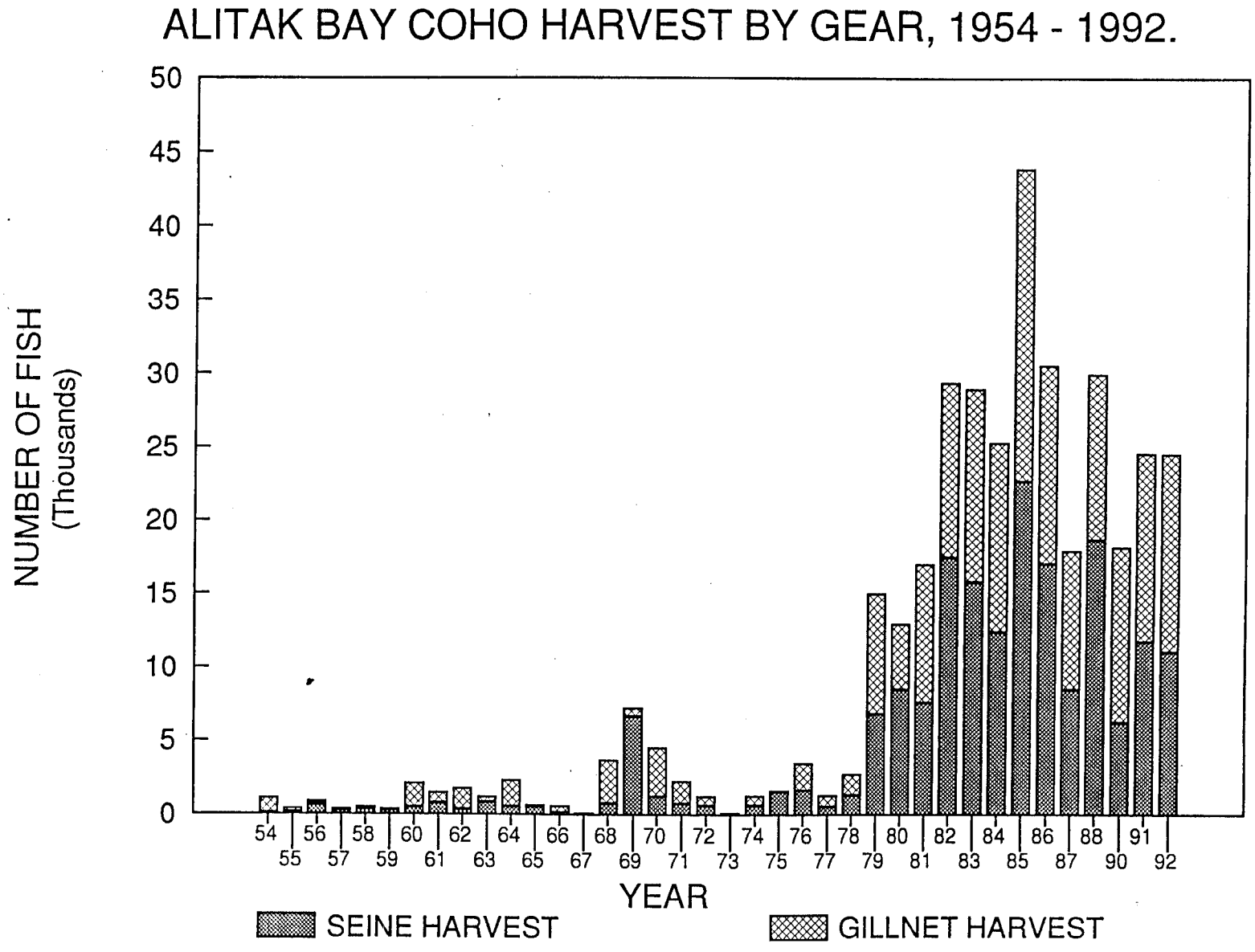


Appendix B.4. Commercial coho salmon harvest, by gear, Alitak Bay District, Kodiak Management Area, 1954 - 1992.

YEAR	SEINE PERMITS	SEINE HARVEST[a]	SEINE PERCENT	GILLNET PERMITS	GILLNET HARVEST[a]	GILLNET PERCENT	TOTAL HARVEST
1954		75	7		1,043	93	1,118
1955		131	32		279	68	410
1956		678	75		226	25	904
1957		260	69		118	31	378
1958		329	67		159	33	488
1959		263	70		115	30	378
1960		497	23		1,632	77	2,129
1961		753	51		717	49	1,470
1962		376	21		1,416	79	1,792
1963		834	69		368	31	1,202
1964		548	24		1,776	76	2,324
1965		575	84		113	16	688
1966		127	22		458	78	585
1967		50	100		0	0	50
1968		776	21		2,925	79	3,701
1969		6,707	93		533	7	7,240
1970		1,227	27		3,313	73	4,540
1971		777	34		1,484	66	2,261
1972		628	49		642	51	1,270
1973		38	30		87	70	125
1974		661	51		623	49	1,284
1975		1,586	97		41	3	1,627
1976		1,659	47		1,859	53	3,518
1977	75	572	43	55	771	57	1,343
1978	166	1,327	48	61	1,461	52	2,788
1979	133	6,840	46	62	8,167	54	15,007
1980	88	8,517	66	68	4,455	34	12,972
1981	97	7,611	45	66	9,400	55	17,011
1982	104	17,504	60	74	11,874	40	29,378
1983	157	15,831	55	80	13,122	45	28,953
1984	70	12,409	49	70	12,890	51	25,299
1985	117	22,707	52	75	21,207	48	43,914
1986	146	17,041	56	79	13,507	44	30,548
1987	151	8,481	47	73	9,478	53	17,959
1988	122	18,670	62	81	11,331	38	30,001
1990	156	6,300	35	91	11,876	65	18,176
1991	187	11,783	48	86	12,818	52	24,601
1992	140	11,107	45	79	13,441	55	24,548
AVERAGES:							
1954-92		4,901	50		4,624	50	9,526
1977-92	127	11,113	50	73	10,387	50	21,500
1982-92	135	14,183	51	79	13,154	49	27,338

[a] Harvest in numbers of fish. Data from ADF&G Annual Management Reports and Fish Ticket Summaries.

Appendix B.5. Commercial harvest of coho salmon in the Alitak Bay District, by gear, Kodiak Management Area, 1954-92.

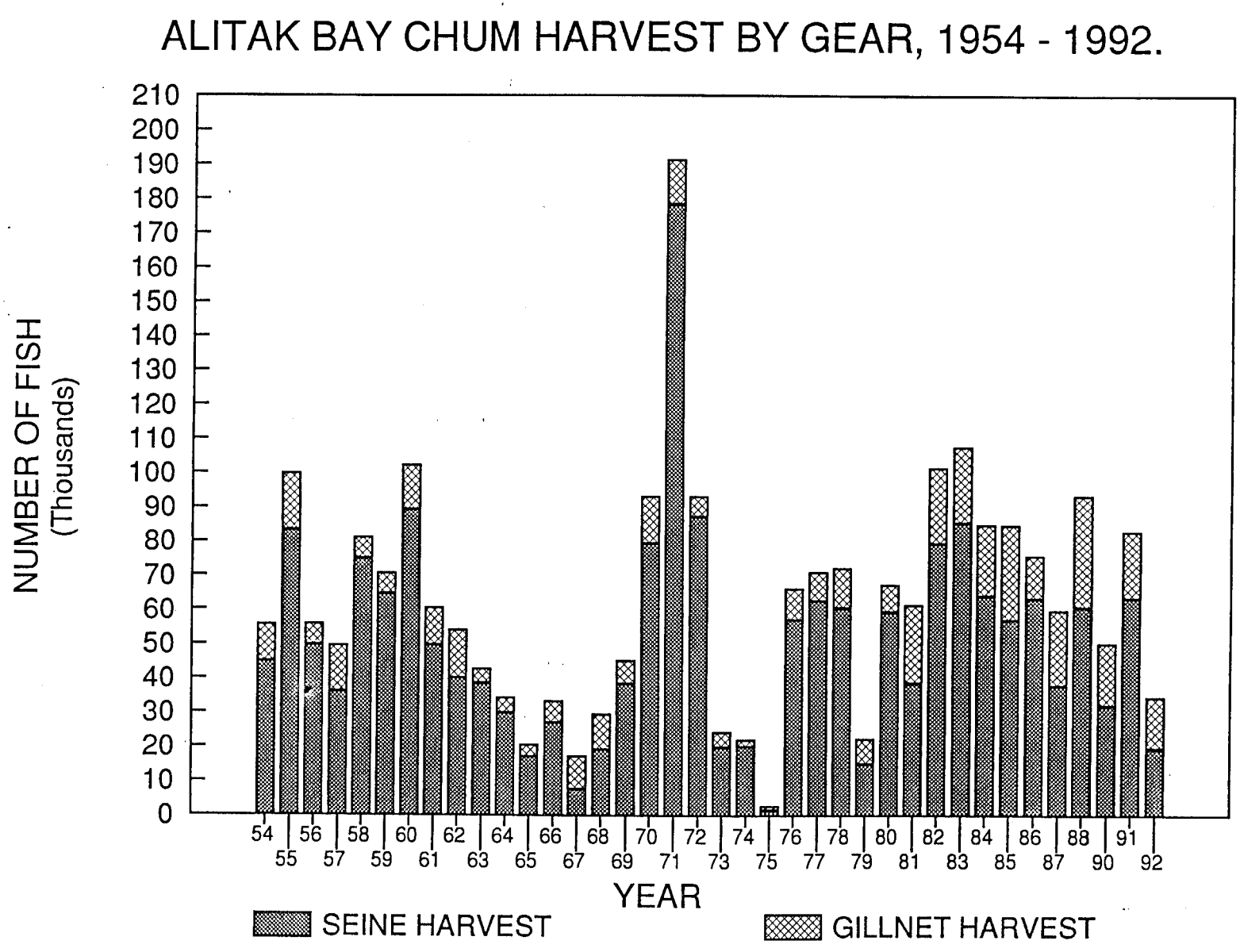


Appendix B.6. Commercial chum salmon harvest, by gear, Alitak Bay District, Kodiak Management Area, 1954 - 1992.

YEAR	SEINE PERMITS	SEINE HARVEST[a]	SEINE PERCENT	GILLNET PERMITS	GILLNET HARVEST[a]	GILLNET PERCENT	TOTAL HARVEST
1954		45,043	81		10,745	19	55,788
1955		83,359	83		16,672	17	100,031
1956		49,747	89		6,220	11	55,967
1957		36,050	73		13,611	27	49,661
1958		74,904	92		6,351	8	81,255
1959		64,642	92		5,947	8	70,589
1960		89,332	87		13,100	13	102,432
1961		49,702	82		10,898	18	60,600
1962		40,132	74		13,983	26	54,115
1963		38,575	90		4,261	10	42,836
1964		29,881	87		4,579	13	34,460
1965		17,181	83		3,423	17	20,604
1966		27,132	82		6,021	18	33,153
1967		7,780	45		9,597	55	17,377
1968		19,261	65		10,189	35	29,450
1969		38,406	85		6,728	15	45,134
1970		79,433	85		13,873	15	93,306
1971		178,454	93		12,983	7	191,437
1972		87,218	94		6,018	6	93,236
1973		19,880	81		4,528	19	24,408
1974		20,160	91		2,060	9	22,220
1975		1,726	60		1,129	40	2,855
1976		56,996	86		9,187	14	66,183
1977	75	62,661	88	55	8,317	12	70,978
1978	166	60,625	84	61	11,541	16	72,166
1979	133	15,241	68	62	7,213	32	22,454
1980	88	59,438	88	68	8,033	12	67,471
1981	97	38,722	63	66	22,791	37	61,513
1982	104	79,398	78	74	22,145	22	101,543
1983	157	85,491	79	80	22,295	21	107,786
1984	70	64,145	76	70	20,779	24	84,924
1985	117	57,005	67	75	27,755	33	84,760
1986	146	63,185	84	79	12,458	16	75,643
1987	151	37,865	63	73	21,858	37	59,723
1988	122	60,693	65	81	32,698	35	93,391
1990	156	32,083	64	91	18,221	36	50,304
1991	187	63,483	76	86	19,520	24	83,003
1992	140	19,642	57	79	14,938	43	34,580
AVERAGES:							
1954-92		51,439	78		12,175	22	63,614
1977-92	127	53,312	73	73	18,037	27	71,349
1982-92	135	56,299	71	79	21,267	29	77,566

[a] Harvest in numbers of fish. Data from ADF&G Annual Management Reports and Fish Ticket Summaries.

Appendix B.7. Commercial harvest of chum salmon in the Alitak Bay District, by gear, Kodiak Management Area, 1954-92.



Appendix B.8. Pink salmon total run (catch and escapement) in the Alitak Bay District, Kodiak Management Area, 1968 - 1992.

YEAR	EVEN YEARS[a] HARVEST	ESCAPEMENT	TOTAL RUN	ODD YEARS[a] HARVEST	ESCAPEMENT	TOTAL RUN
1968	1,046,221	236,700	1,282,921			
1969				3,775,182	349,225	4,124,407
1970	949,871	249,700	1,199,571			
1971				1,066,180	333,800	1,399,980
1972	188,829	141,547	330,376			
1973				49,932	128,566	178,498
1974	355,154	235,788	590,942			
1975				235,711	235,744	471,455
1976	1,826,482	634,115	2,460,597			
1977				961,673	411,580	1,373,253
1978	4,191,756	657,337	4,849,093			
1979				1,666,192	569,185	2,235,377
1980	2,053,080	517,905	2,570,985			
1981				2,073,629	625,206	2,698,835
1982	519,769	466,829	986,598			
1983				1,428,526	440,358	1,868,884
1984	433,806	313,518	747,324			
1985				1,057,910	798,638	1,856,548
1986	728,205	349,068	1,077,273			
1987				916,793	476,794	1,393,587
1988	385,735	260,400	646,135			
1989				182,230	1,984,371	2,166,601
1990	144,927	93,429	238,356			
1991				2,373,516	468,244	2,841,760
1992	59,268	183,124	242,392			
AVERAGES						
1968-92	991,008	333,805	1,324,813	1,315,623	568,476	1,884,099
1972-92	1,069,818	371,151	1,440,970	1,094,611	613,869	1,708,480
1982-92	350,388	239,908	590,296	1,191,795	833,681	2,025,476

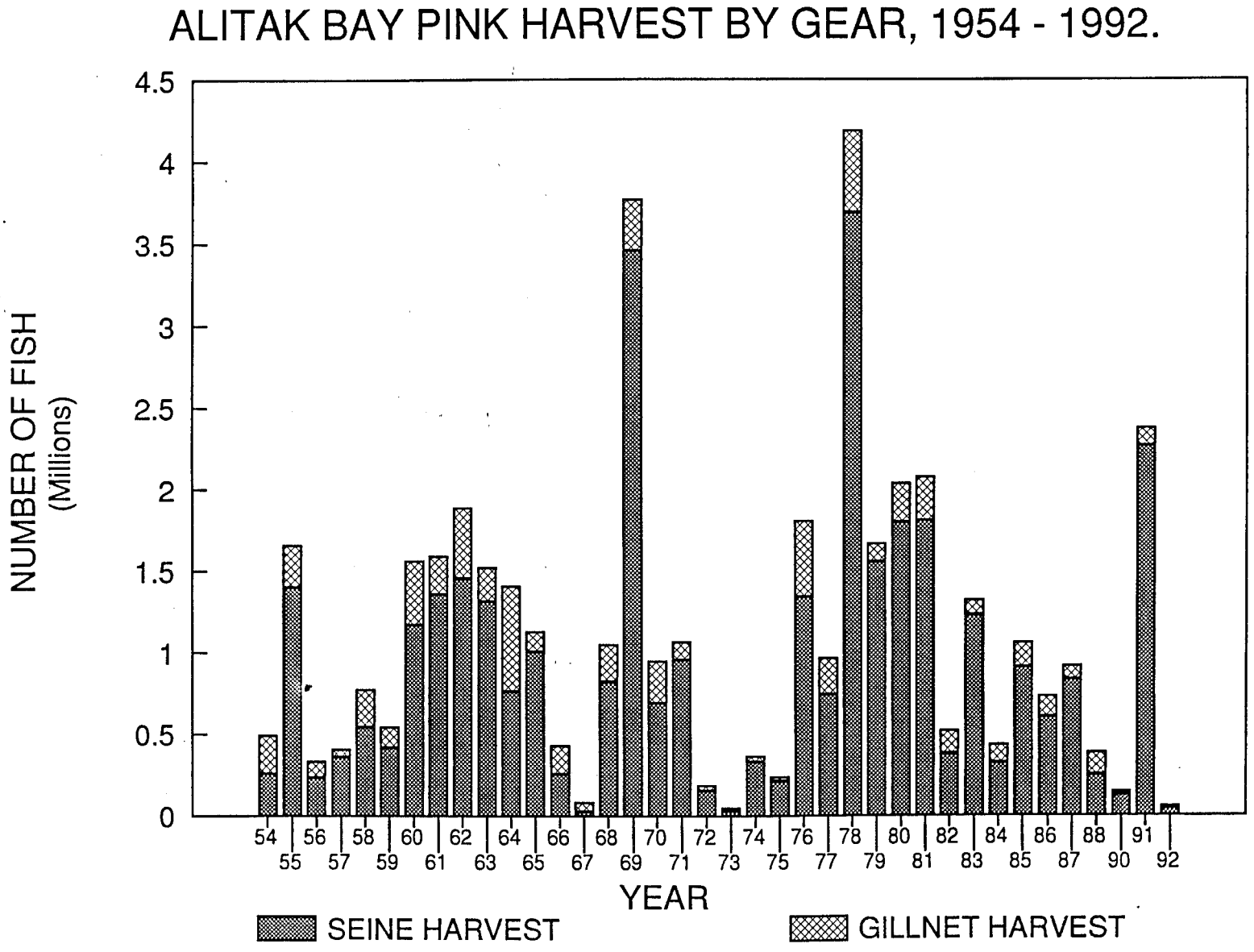
[a] In numbers of fish. Data from ADF&G Annual Management Reports and Fish Ticket Summaries.

Appendix B.9. Commercial pink salmon harvest, by gear, Alitak Bay District, Kodiak Management Area, 1954 - 1992.

YEAR	SEINE PERMITS	SEINE HARVEST[a]	SEINE PERCENT	GILLNET PERMITS	GILLNET HARVEST[a]	GILLNET PERCENT	TOTAL HARVEST
1954		257,726	53		232,312	47	490,038
1955		1,400,913	85		255,450	15	1,656,363
1956		234,154	70		101,515	30	335,669
1957		361,397	88		49,223	12	410,620
1958		545,654	71		225,197	29	770,851
1959		418,168	77		126,424	23	544,592
1960		1,170,706	75		390,770	25	1,561,476
1961		1,358,658	86		230,369	14	1,589,027
1962		1,456,537	77		430,232	23	1,886,769
1963		1,313,775	86		209,081	14	1,522,856
1964		761,868	54		646,863	46	1,408,731
1965		1,004,528	89		124,657	11	1,129,185
1966		255,620	60		173,584	40	429,204
1967		28,911	34		56,007	66	84,918
1968		821,387	79		224,834	21	1,046,221
1969		3,455,696	92		313,221	8	3,768,917
1970		690,798	73		258,690	27	949,488
1971		955,531	90		110,649	10	1,066,180
1972		155,451	83		31,703	17	187,154
1973		32,486	65		17,446	35	49,932
1974		329,623	91		33,766	9	363,389
1975		210,097	89		25,623	11	235,720
1976		1,338,996	74		465,007	26	1,804,003
1977	75	738,853	77	55	222,820	23	961,673
1978	166	3,691,218	88	61	500,538	12	4,191,756
1979	133	1,550,402	93	62	113,847	7	1,664,249
1980	88	1,793,284	88	68	239,952	12	2,033,236
1981	97	1,807,562	87	66	266,067	13	2,073,629
1982	104	380,224	73	74	139,656	27	519,880
1983	157	1,228,208	93	80	90,318	7	1,318,526
1984	70	323,767	75	70	110,039	25	433,806
1985	117	906,570	86	75	151,342	14	1,057,912
1986	146	603,812	83	79	124,393	17	728,205
1987	151	831,927	91	73	84,948	9	916,875
1988	122	251,888	65	81	133,847	35	385,735
1990	156	125,678	87	91	19,249	13	144,927
1991	187	2,261,769	95	86	111,747	5	2,373,516
1992	140	42,942	72	79	16,326	28	59,268
AVERAGES:							
1954-92		923,600	79		185,729	21	1,109,329
1972-92	127			73			
Odd Year		941,365	86		153,246	14	1,094,611
Even Year		855,854	80		213,964	20	1,069,818
1982-92	135			79			
Odd Year		1,084,533	91		107,262	9	1,191,795
Even Year		266,295	76		84,093	24	350,388

[a] Harvest in numbers of fish. Data from ADF&G Annual Management Reports and Fish Ticket Summaries.

Appendix B.10. Commercial harvest of pink salmon in the Alitak Bay District, by gear, Kodiak Management Area, 1954-92.

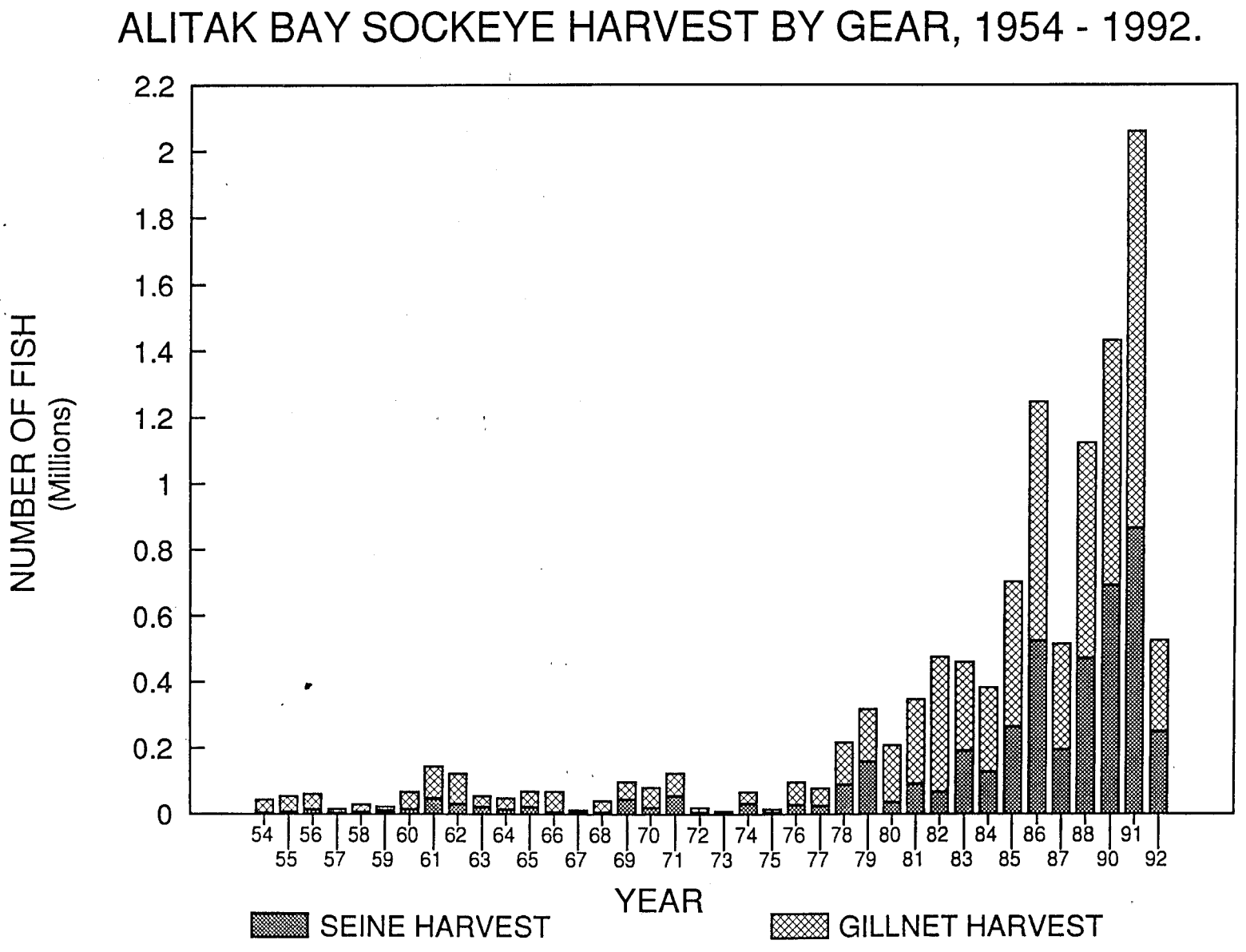


Appendix B.11. Commercial sockeye salmon harvest, by gear, Alitak Bay District, Kodiak Management Area, 1954 - 1992.

YEAR	SEINE PERMITS	SEINE HARVEST[a]	SEINE PERCENT	GILLNET PERMITS	GILLNET HARVEST[a]	GILLNET PERCENT	TOTAL HARVEST
1954		2,486	6		41,962	94	44,448
1955		6,033	11		50,025	89	56,058
1956		14,153	23		48,520	77	62,673
1957		1,915	12		13,450	88	15,365
1958		6,310	21		24,232	79	30,542
1959		10,225	41		14,663	59	24,888
1960		15,454	23		53,018	77	68,472
1961		48,832	33		96,949	67	145,781
1962		31,239	25		93,257	75	124,496
1963		22,212	40		32,780	60	54,992
1964		13,932	28		36,235	72	50,167
1965		22,059	32		46,817	68	68,876
1966		6,605	9		63,921	91	70,526
1967		2,567	18		11,660	82	14,227
1968		5,731	14		34,931	86	40,662
1969		45,323	46		53,399	54	98,722
1970		19,528	24		62,000	76	81,528
1971		55,514	45		68,966	55	124,480
1972		6,681	30		15,446	70	22,127
1973		3,889	38		6,449	62	10,338
1974		32,137	48		34,468	52	66,605
1975		4,660	28		11,855	72	16,515
1976		27,957	29		68,711	71	96,668
1977	75	24,474	31	55	54,331	69	78,805
1978	166	88,785	41	61	129,380	59	218,165
1979	133	159,099	50	62	158,807	50	317,906
1980	88	36,057	17	68	172,143	83	208,200
1981	97	91,525	26	66	254,548	74	346,073
1982	104	67,168	14	74	409,694	86	476,862
1983	157	190,776	41	80	269,311	59	460,087
1984	70	126,515	33	70	256,214	67	382,729
1985	117	261,961	37	75	441,225	63	703,186
1986	146	522,993	42	79	724,983	58	1,247,976
1987	151	193,206	37	73	322,204	63	515,410
1988	122	470,529	42	81	652,945	58	1,123,474
1990	156	690,818	48	91	744,643	52	1,435,461
1991	187	864,944	42	86	1,197,774	58	2,062,718
1992	140	248,699	47	79	276,459	53	525,158
AVERAGES:							
1954-92		116,921	31		185,484	69	302,404
1977-92	127	269,170	37	73	404,311	63	673,481
1982-92	135	363,761	38	79	529,545	62	893,306

[a] Harvest in numbers of fish. Data from ADF&G Annual Management Reports and Fish Ticket Summaries.

Appendix B.12. Commercial harvest of sockeye salmon in the Alitak Bay District , by gear, Kodiak Management Area, 1954-92.

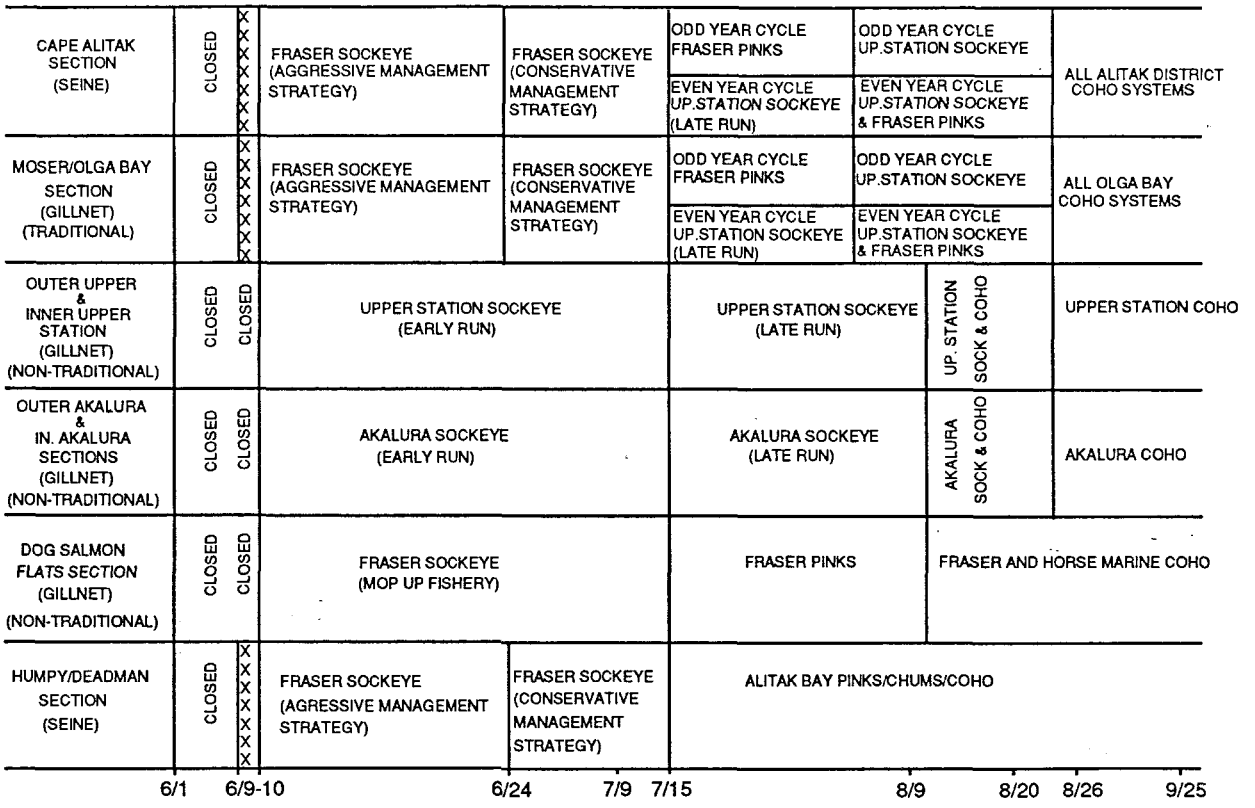


Appendix B.13. Chronology of events affecting the management of commercial salmon fisheries in the Alitak Bay District, Kodiak Management Area, 1992.

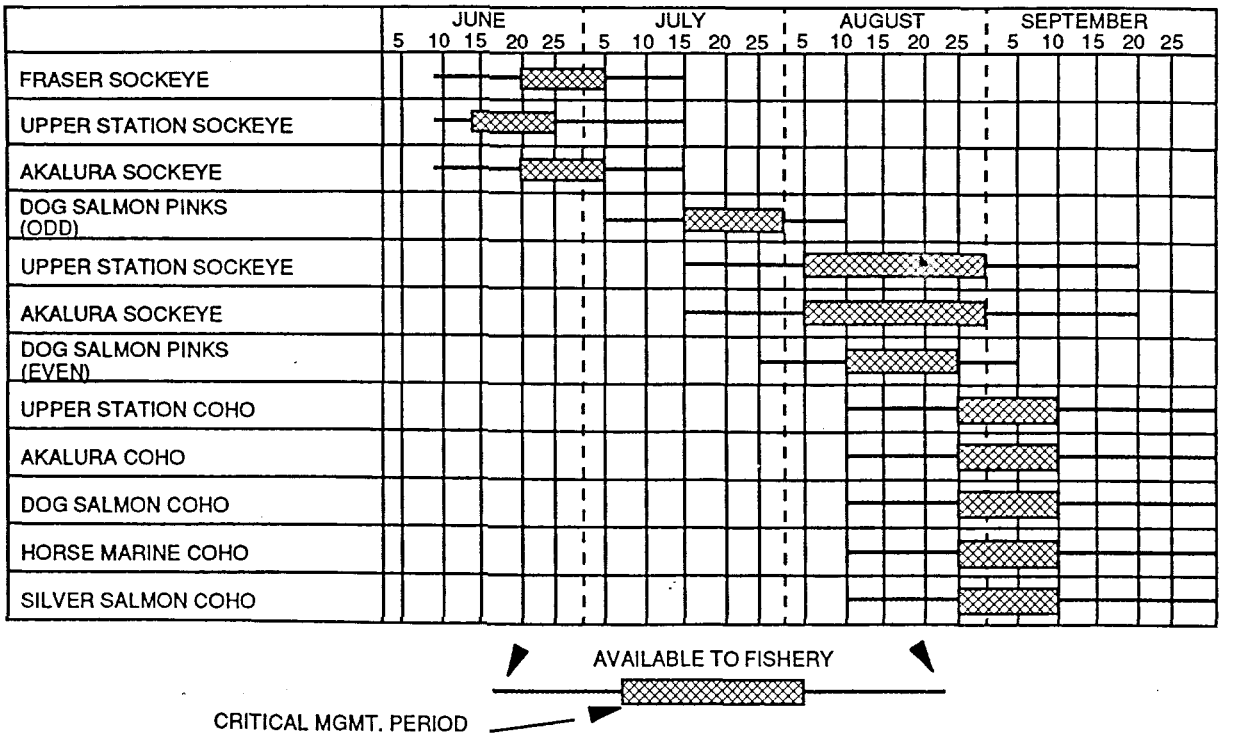
YEAR	MANAGEMENT ACTION
1960	The Alaska Department of Fisheries assumes management control of salmon fisheries.
1962	Fishpass installed on barrier falls near Frazer Lake.
1970	Continued poor returns of Alitak stocks leads to complete closure of the Alitak Bay District during June.
1971	Last year of sockeye egg plants into the Frazer system. Adult returns are sufficient to insure population buildup.
1975	Frazer sockeye escapement goal set at 350,000 - 400,000. Upper Station sockeye escapement goal at 180,000.
1978	Minimum of two day fisheries in June allowed by management plan. However, only gillnet areas opened (general fishing periods about 6/14 and 6/22).
1980	First year Frazer Lake sockeye escapement goal met.
1983	Weir installed on Dog Salmon River. This is necessary in order to assess salmon buildups on Dog Salmon Flats, and provide more timely counts of sockeye escapement.
	Equal fishing time for both gillnet and seine areas during June mandated by management plan.
	Upper Station sockeye escapement goal raised to 250,000.
1984	First poor sockeye return to Frazer Lake; overescapement suspected.
	First set gillnet mop-up fishery at in upper Olga Bay for Upper Station late run sockeye.
	First June 9 "test fishery" for the Alitak Bay District.
1985	More "aggressive" harvest strategy by ADF&G.
1986	Record sockeye returns to Upper Station. Second year of weak sockeye returns to Frazer Lake. ADF&G test fishery in Olga Narrows (Chip Cove) started.
1987	Frazer sockeye escapement goal lowered to 200,000 to 275,000. Escapement goal documented for other species of salmon.
1988	Alitak Bay District Management Plan placed into regulation by Board of Fisheries.
	Frazer sockeye escapement goal lowered to 140,000 to 200,000. Upper Station sockeye escapement goal raised to 275,000 (early run 50,000-75,000, late run 150,000 - 200,000).

Appendix B.14. Alitak Bay District Salmon Management Plan, chronology and primary management species, Kodiak Management Area, 1992.

ALITAK BAY DISTRICT MANAGEMENT PLAN



KODIAK MANAGEMENT AREA - ALITAK BAY DISTRICT PRIMARY MANAGEMENT SPECIES BY STREAM BY TIME



Appendix B.15. The Alitak Bay District Salmon Management Plan, Kodiak Management Area, 1992.

5 AAC 18.361. ALITAK BAY DISTRICT SALMON MANAGEMENT PLAN (a) The department shall manage the commercial salmon fishery in the Alitak Bay District in accordance with the guidelines set out in the Alitak Bay District Salmon Management Plan. The goal of this plan is to achieve escapement and harvest objectives of sockeye, pink, and coho salmon stocks returning to the Deadman-Portage Bay Section systems and the Horse Marine, Fraser, Akalura, and Upper Station systems. It is the intent of the board that salmon bound to these systems be harvested to the extent possible by the traditional fisheries located in the Cape Alitak, Deadman-Portage Bay, and Moser-Olga Bay Sections.

(b) The Cape Alitak Section must be managed during the period June 9 through July 15 based on the sockeye salmon return to the Fraser system. During the period July 16 through August 9, in odd numbered years this section must be managed based on the pink salmon return to the Fraser system and, in even numbered years this section must be managed based on the sockeye salmon return to Upper Station. During the period August 10 through August 25, this section must be managed based on the sockeye salmon return to Upper Station but, on even numbered years this section must be managed based on the pink salmon return to the Fraser system. During the period August 26 through season's end, the Cape Alitak Section must be managed based upon the coho and sockeye salmon returns to the entire Alitak District.

(c) The Moser-Olga Bay Section must be managed, during the period June 9 through July 15, based upon the sockeye salmon return to the Fraser system. During the period July 16 through August 9, in odd-numbered years this section must be managed based on the pink salmon return to the Fraser system and, in even-numbered years this section must be managed based on the sockeye salmon return to Upper Station. During the period August 10 through August 25, in odd-numbered years this section must be managed based on the sockeye salmon return to Upper Station and, in even numbered years this section must be managed based on either the pink salmon return to the Fraser system or on the sockeye salmon return to the Upper Station system. During the period August 26 through season's end this section must be managed based on the coho and late sockeye salmon returns to all Olga Bay systems.

(d) The Humpy-Deadman Section must be managed simultaneously, and with equivalent fishing time, with the Cape Alitak and Moser-Olga Bay Sections during the period from June 9 through July 15. After July 15, the Humpy-Deadman Section must be managed based on the strength of returns to systems located within the section.

(e) The Dog Salmon Flats Section must be managed on the basis of sockeye and pink salmon returns to the Fraser River system during the period of June 9 through August 20. During the period of August 21 through season's end this section must be managed on the basis of coho salmon returns to the Dog Salmon River and Horse Marine systems. This section may only be opened to fishing when total desired escapement goals are expected to be exceeded. Such openings may not jeopardize achievement of minimum escapement goals for either of the two remaining salmon species. A 24 hour advance notice must be given before opening this section.

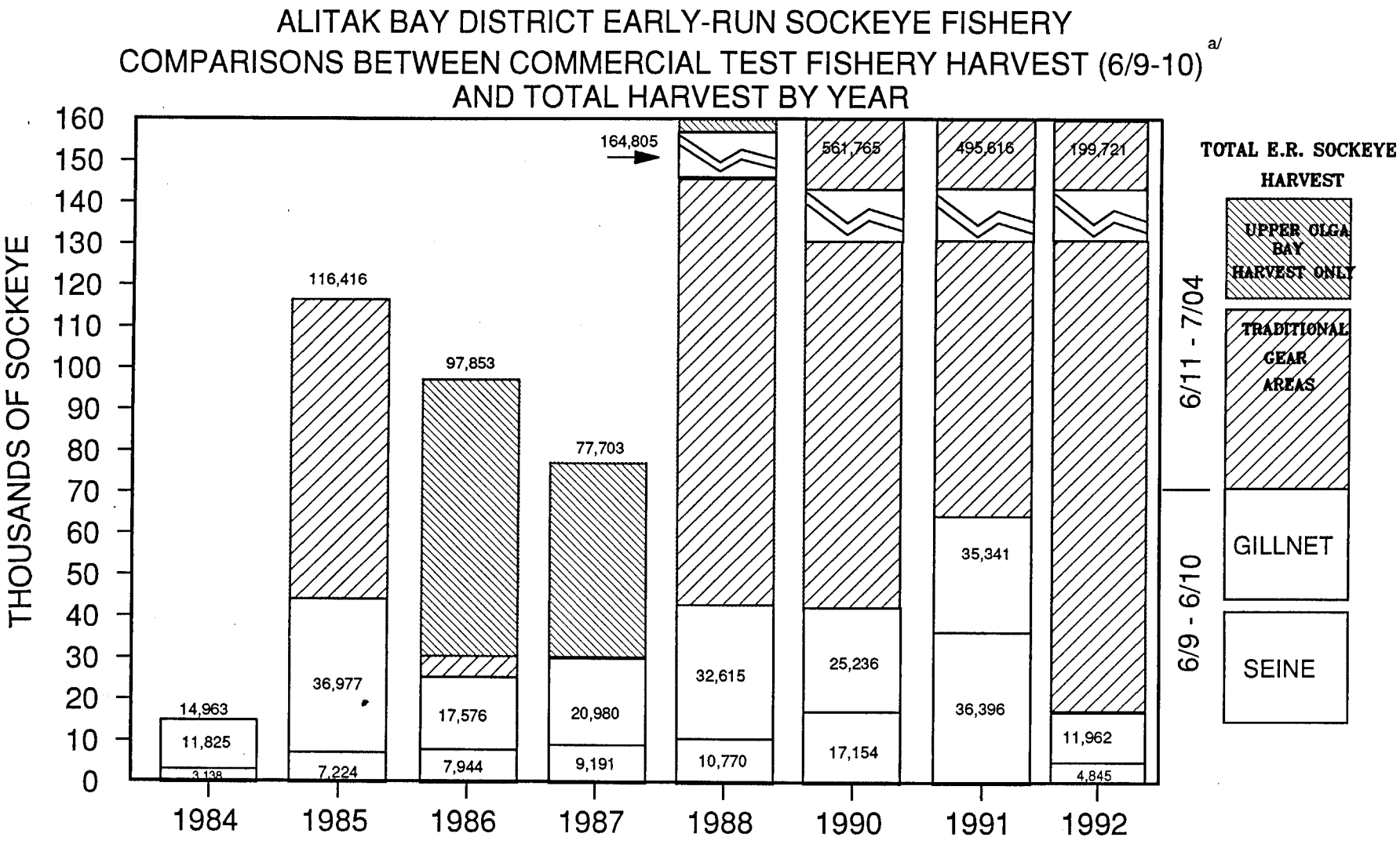
(f) The Inner and Outer Akalura Sections must be managed based on early and late returns of sockeye salmon to the Akalura system during the period from June 9 through August 20. From August 21 through August 26, these sections must be managed based on coho and late sockeye salmon returns to the Akalura system. After August 26, both sections must be managed based on coho salmon returns to the Akalura system. The Inner and Outer Akalura Sections may be opened to fishing only when desired escapement goals are expected to be exceeded. Such openings may not jeopardize achievement of minimum escapement goals for other salmon species. Fishing time in the Outer Akalura Section must always occur before any fishing time in the Inner Akalura Section is allowed for each target species. At least 24 hours advance notice must be given before opening either the Inner or Outer Akalura Sections.

(g) The Inner and Outer Upper Station Sections must be managed based on early and late returns of sockeye salmon to the Upper Station system during the period from June 9 through August 20. From August 21 through August 25, these sections must be managed based on coho and late sockeye salmon returns to the Upper Station system. After August 26, both sections must be managed based on coho and late sockeye salmon returns to the Upper Station system. The Inner and Outer Upper Station Sections may be opened to fishing only when desired escapement goals are expected to be exceeded. Such openings may not jeopardize achievement of minimum escapement goals for the other salmon species. Fishing time in the Outer Upper Station Section must always occur before any fishing time in the Inner Upper Station Section is allowed for each target species. At least 24 hours advance notice must be given before opening of either the Inner or Outer Upper Station Sections.

Appendix B.16. Chronology of changes in gear regulation for the commercial salmon fisheries in the Alitak Bay District, Kodiak Management Area, 1992.

YEAR	GEAR REGULATIONS
Prior to 1983	The aggregate length of set gillnets used by an individual may not may not exceed 150 fathoms. No more than two set gillnets may be operated by the individual holding the gear license. Set gillnet shall be operated in substantially a straight line. No more than 25 fathoms of each net may be used as a single hook. Seine webbing may be used on the shore end between high and low water marks. The inshore end of a set gillnet must be attached to the shore above the mean low water mark. No part of a set gillnet may be placed or operated within 900 feet of any part of another set gillnet.
1983	25 fathom hook in any configuration.
1985	Joint Venture setnet sites. Seine webbing may extend on the shoreward end of a set gillnet and may not extend more than 50 fathoms seaward of beach at low tide of day except for Moser-Olga Bay Section where seine webbing used from high tide mark seaward and no portion of the seine web may be in water deeper than five feet during the lowest tide of the day. Shoreward end of a setnet must be attached to the beach above the lowest tide of the day. Setnet attachment points must be 900 feet apart and cannot be attached inside closed waters.
1988	For Moser Bay, outside Bun Point, minimum lead length of 20 fathoms or seine webbing from high tide seaward no deeper than five feet at lowest tide of the day. Eliminated minimum distance in Olga Bay closed waters - no running lines buoys in water prior to openings in normal closed waters, Shoreward end of set gillnet attached to point of land or rock within five feet of the lowest tide of the day. (Define rock - naturally located).
1990	In the Alitak District limit distance from attachment point to net to legal lead distance for that gear location. Maximum depth limit placed on seines (325 meshes) and set gillnets (125 meshes).

Appendix B.17. Early run sockeye harvests, by gear, area of harvest, and time period, Alitak Bay District, Kodiak Area, 1984-1992.



a/ G.N. HARVEST STAT. AREAS: 257-30,40,41 SEINE HARVEST STAT. AREAS: 257-10,20,50,60,70

1989 - NOT INCLUDED DUE TO CANCELATION OF THE TEST FISHERY AND THE UNUSUAL HARVEST PATTERN CAUSED BY THE 1989 EXXON VALDEZ OIL SPILL.

A1-ALITAK30

Appendix B.18. Daily and cumulative sockeye salmon catch in number of fish, and average cumulative percent CPUE (excluding 1992) for the Olga Bay test fishery in Moser Bay, 1988 through 1992.

Date	Daily CPUE (180 min.)					Cum. CPUE (180 min.)					AVERAGE CUM. %
	1988	1989	1990	1991	1992	1988	1989	1990	1991	1992	1988-91
29-May	1	10	7	26	2	1	10	7	26	2	1
30-May	3	15	3	26	5	4	25	10	52	7	2
31-May	11	21	4	30	10	15	46	14	82	17	3
01-June	42	8	7	34	14	57	54	21	116	31	4
02-June	59	16	6	37	16	116	70	27	154	47	6
03-June	42	79	23	6	24	157	149	50	160	71	9
04-June	9	122	24	8	41	166	271	73	168	112	11
05-June	36	42	30	12	14	202	312	103	180	126	13
06-June	8	92	44	22	6	210	404	147	202	132	16
07-June	24	61	52	25	62	234	466	199	227	194	19
08-June	13	42	34	41	91	248	508	233	268	285	22
09-June	26	54	14	11	20	274	562	247	279	305	23
10-June	25	58	14	19	0	299	620	261	298	305	25
11-June	17	20	57	36	7	316	640	318	334	312	28
12-June	65	55	16	29	68	382	695	333	363	380	31
13-June	48	71	6	12	10	429	766	339	375	390	33
14-June	191	20	2	22	52	620	786	341	397	442	37
15-June	14	59	5	24	97	634	845	346	421	539	39
16-June	22	40	16	37	61	656	885	362	458	600	41
17-June	48	21	18	43	22	704	907	380	501	622	43
18-June	35	76	22	19	14	739	983	402	520	636	46
19-June	89	45	27	5	3	828	1,028	429	525	639	49
20-June	19	56	26	4	1	847	1,083	455	529	640	50
21-June	41	33	92	3	18	889	1,116	547	532	658	54
22-June	15	32	98	4	24	903	1,148	644	536	682	58
23-June	61	19	26	12	1	964	1,167	670	548	683	60
24-June	39	90	45	15	2	1,003	1,257	715	563	685	64
25-June	27	54	26	41	2	1,030	1,310	740	604	687	66
26-June	38	63	12	27	0	1,068	1,373	753	631	687	68
27-June	46	104	4	106	1	1,113	1,477	757	737	688	72
28-June	18	82	42	97	2	1,132	1,559	798	834	690	77
29-June	8	72	16	47	34	1,139	1,631	814	881	724	79
30-June	5	81	2	90	101	1,144	1,712	816	971	825	81
01-July	9	123	10	53	91	1,153	1,835	826	1,025	916	84
02-July	14	72	1	122	10	1,167	1,907	827	1,147	926	87
03-July	19	22	1	74	5	1,186	1,929	828	1,221	931	89
04-July	24	18	1	40	8	1,210	1,947	829	1,261	939	91
05-July	29	48	3	46	0	1,239	1,994	833	1,307	939	93
06-July	34	30	2	6	0	1,273	2,024	834	1,313	939	94
07-July	24	51	3	19	2	1,297	2,075	837	1,332	941	95
08-July	12	28	2	17	2	1,309	2,103	839	1,348	943	96
09-July	0	38	2	14	19	1,309	2,141	840	1,362	962	97
10-July	0	34	2	5	12	1,309	2,175	842	1,367	974	97
11-July	15	34	2	46	60	1,324	2,208	844	1,413	1,034	99
12-July	4	28	0	2	72	1,328	2,237	844	1,415	1,106	99
13-July	1	15	0	5	37	1,329	2,251	844	1,420	1,143	99
14-July	2	21	0	2	27	1,331	2,272	845	1,422	1,170	100
15-July	1	9	1	3	6	1,332	2,282	845	1,425	1,176	100
TOTALS	1,332	2,282	845	1,425	1,176						

Appendix B.19. Estimated cumulative sockeye salmon run into Olga Bay, in numbers of fish, based on cumulative test fish at Chip Cove in Moser Bay, by date, 1992.

Date	Point Estimate	Range	
		low	high
29-May	912	619	1,159
30-May	3,256	2,209	4,140
31-May	7,970	5,409	10,136
01-June	14,533	9,862	18,483
02-June	21,826	14,811	27,757
03-June	32,887	22,317	41,824
04-June	51,346	34,843	65,298
05-June	57,947	39,322	73,693
06-June	60,728	41,209	77,229
07-June	88,817	60,270	112,951
08-June	130,297	88,418	165,703
09-June	139,413	94,604	177,295
10-June	139,413	94,604	177,295
11-June	142,657	96,806	181,421
12-June	173,422	117,682	220,545
13-June	178,005	120,792	226,374
14-June	201,895	137,004	256,756
15-June	246,241	167,096	313,151
16-June	274,050	185,968	348,518
17-June	284,077	192,772	361,269
18-June	290,640	197,226	369,616
19-June	292,008	198,153	371,355
20-June	292,471	198,468	371,944
21-June	300,767	204,098	382,494
22-June	311,526	211,399	396,177
23-June	311,982	211,708	396,757
24-June	312,894	212,326	397,916
25-June	313,805	212,945	399,075
26-June	313,805	212,945	399,075
27-June	314,261	213,254	399,655
28-June	315,173	213,873	400,814
29-June	330,669	224,388	420,521
30-June	376,702	255,626	479,062
01-July	418,177	283,770	531,808
02-July	422,734	286,863	537,604
03-July	425,013	288,410	540,502
04-July	428,659	290,884	545,139
05-July	428,659	290,884	545,139

-Continued-

Appendix B.19. (page 2 of 2)

Date	Point Estimate	Range	
		low	high
06-July	428,659	290,884	545,139
07-July	429,571	291,503	546,298
08-July	430,483	292,121	547,457
09-July	439,142	297,997	558,470
10-July	444,704	301,772	565,543
11-July	472,050	320,329	600,320
12-July	504,685	342,474	641,822
13-July	521,738	354,046	663,509
14-July	534,043	362,396	679,159
15-July	536,809	364,273	682,675

Note: Point estimate determined by multiplying cumulative test fish catch by 454; range determined by observed low (309) and high (580) test-fish index values from 1988-91.

Appendix B.20. Commercial salmon harvest, by species, and percentage by gear type, Alitak Bay District, Kodiak Management Area, 1954 - 1992.

YEAR	CHINOOK #	CHINOOK SN%	CHINOOK PS%	SOCKEYE #	SOCKEYE SN%	SOCKEYE PS%	COHO #	COHO SN%	COHO PS%	PINK #	PINK SN%	PINK PS%	CHUM #	CHUM SN%	CHUM PS%	TOTAL #	TOTAL SN%	TOTAL PS%
1954	3	33%	67%	44448	94%	6%	1118	93%	7%	490038	47%	53%	55788	19%	81%	591395	48%	52%
1955	38	74%	26%	56058	89%	11%	410	68%	32%	1656363	15%	85%	100031	17%	83%	1812900	18%	82%
1956	10	10%	90%	62673	77%	23%	904	25%	75%	335669	30%	70%	55967	11%	89%	455223	34%	66%
1957	7	14%	86%	15365	88%	12%	378	31%	69%	410620	12%	88%	49661	27%	73%	476031	16%	84%
1958	11	0%	100%	30542	79%	21%	488	33%	67%	770851	29%	71%	81255	8%	92%	883147	29%	71%
1959	11	18%	82%	24888	59%	41%	378	30%	70%	544592	23%	77%	70589	8%	92%	640458	23%	77%
1960	29	17%	83%	68472	77%	23%	2129	77%	23%	1561476	25%	75%	102432	13%	87%	1734538	26%	74%
1961	23	4%	96%	145781	67%	33%	1470	49%	51%	1589027	14%	86%	60600	18%	82%	1796901	19%	81%
1962	5	20%	80%	124496	75%	25%	1792	79%	21%	1886769	23%	77%	54115	26%	74%	2067177	26%	74%
1963	30	7%	93%	54992	60%	40%	1202	31%	69%	1522856	14%	86%	42836	10%	90%	1621916	15%	85%
1964	29	10%	90%	50167	72%	28%	2324	76%	24%	1408731	46%	54%	34460	13%	87%	1495711	46%	54%
1965	16	6%	94%	68876	68%	32%	688	16%	84%	1129185	11%	89%	20604	17%	83%	1219369	14%	86%
1966	2	50%	50%	70526	91%	9%	585	78%	22%	429204	40%	60%	33153	18%	82%	533470	46%	54%
1967	6	0%	100%	14227	82%	18%	50	0%	100%	84918	66%	34%	17377	55%	45%	116578	66%	34%
1968	16	44%	56%	40662	86%	14%	3701	79%	21%	1046221	21%	79%	29450	35%	65%	1120050	24%	76%
1969	27	37%	63%	98722	54%	46%	7240	7%	93%	3768917	8%	92%	45134	15%	85%	3920040	10%	90%
1970	8	50%	50%	81528	76%	24%	4540	73%	27%	949488	27%	73%	93306	15%	85%	1128870	30%	70%
1971	33	30%	70%	124480	55%	45%	2261	66%	34%	1066180	10%	90%	191437	7%	93%	1384391	14%	86%
1972	15	40%	60%	22127	70%	30%	1270	51%	49%	187154	17%	83%	93236	6%	94%	303802	18%	82%
1973	4	50%	50%	10338	62%	38%	125	70%	30%	49932	35%	65%	24408	19%	81%	84807	34%	66%
1974	19	16%	84%	66605	52%	48%	1284	49%	51%	363389	9%	91%	22220	9%	91%	453517	16%	84%
1975	0	0%	0%	16515	72%	28%	1627	3%	97%	235720	11%	89%	2855	40%	60%	256717	15%	85%
1976	18	28%	72%	96668	71%	29%	3518	53%	47%	1804003	26%	74%	66183	14%	86%	1970390	28%	72%
1977	20	40%	60%	78805	69%	31%	1343	57%	43%	961673	23%	77%	70978	12%	88%	1112819	26%	74%
1978	694	58%	42%	218165	59%	41%	2788	52%	48%	4191756	12%	88%	72166	16%	84%	4485569	14%	86%
1979	108	24%	76%	317906	50%	50%	15007	54%	46%	1664249	7%	93%	22454	32%	68%	2019724	14%	86%
1980	34	21%	79%	208200	83%	17%	12972	34%	66%	2033236	12%	88%	67471	12%	88%	2321913	18%	82%
1981	45	13%	87%	346073	74%	26%	17011	55%	45%	2073629	13%	87%	61513	37%	63%	2498271	22%	78%
1982	43	30%	70%	476862	86%	14%	29378	40%	60%	519880	27%	73%	101543	22%	78%	1127706	52%	48%
1983	159	12%	88%	460087	59%	41%	28953	45%	55%	1318526	7%	93%	107786	21%	79%	1915511	21%	79%
1984	290	11%	89%	382729	67%	33%	25299	51%	49%	433806	25%	75%	84924	24%	76%	927048	43%	57%
1985	199	21%	79%	703186	63%	37%	43914	48%	52%	1057912	14%	86%	84760	33%	67%	1889971	34%	66%
1986	134	17%	83%	1247976	58%	42%	30548	44%	56%	728205	17%	83%	75643	16%	84%	2082506	42%	58%
1987	105	11%	89%	515410	63%	37%	17959	53%	47%	916875	9%	91%	59723	37%	63%	1510072	29%	71%
1988	624	11%	89%	1123474	58%	42%	30001	38%	62%	385735	35%	65%	93391	35%	65%	1633225	51%	49%
1990	807	17%	83%	1435461	52%	48%	18176	65%	35%	144927	13%	87%	50304	36%	64%	1649675	48%	52%
1991	821	10%	90%	2062718	58%	42%	24601	52%	48%	2373516	5%	95%	83003	24%	76%	4544659	30%	70%
1992	1056	9%	91%	525158	53%	47%	24548	55%	45%	59268	28%	72%	34580	43%	57%	644610	50%	50%
Average 1970-92	238	19%	81%	478203	60%	40%	15324	49%	51%	1069048	14%	86%	71086	20%	80%	1633899	28%	72%
Average 1982-92	424	12%	88%	893306	59%	41%	27338	48%	52%	793865	12%	88%	77566	27%	73%	1792498	37%	63%
										Even-350388	24%	76%						
										Odd-1191795	9%	91%						

Appendix B.21. Commercial sockeye harvest in the Alitak Bay District, by gear location, Kodiak Management Area, 1982 - 1992.

ALITAK DISTRICT SOCKEYE HARVEST[a] BY GEAR, 1982 - 1992.

	GEAR											
	SEINE			GILLNET								
YEAR	PERMITS	ALITAK BAY	%	PERMITS	OLGA BAY	%	PERMITS	MOSER BAY	%	G/N TOTAL	%	TOTAL
1982	104	65,700	14	46	162,700	34	63	247,000	52	409,700	86	475,400
1983	157	189,900	41	43	85,900	19	67	183,400	40	269,300	59	459,200
1984	70	123,100	32	40	79,900	21	61	176,300	47	256,200	68	379,300
1985	117	261,200	37	45	138,700	20	70	301,600	43	440,300	63	701,500
1986	146	522,900	42	65	386,500	31	67	338,500	27	725,000	58	1,247,900
1987	151	193,200	37	61	133,900	26	60	188,300	37	322,200	63	515,400
1988	122	470,500	42	58	251,100	22	65	401,800	36	652,900	58	1,123,400
1989[b]	1	100	0	80	1,150,000	90	45	134,000	10	1,284,000	100	1,284,100
1990	156	690,800	48	63	237,300	17	73	507,300	35	744,600	52	1,435,400
1991	187	864,900	42	67	571,700	28	65	626,000	30	1,197,700	58	2,062,600
1992	140	248,700	47	44	78,700	15	65	197,800	38	276,500	53	525,200
AVERAGE 1982 - 1992	135	363,100	41	53	212,600	24	66	316,800	35	529,400	59	892,500

a - HARVEST IN NUMBER OF FISH

b - 1989 HARVEST PATTERNS WERE UNUSUAL DUE TO THE EFFECT OF THE EXXON VALDEZ OIL SPILL. 1989 HARVEST NOT USED IN CALCULATION OF AVERAGES.

REVISED 11/19/92

APPENDIX C

Summary of the North Shelikof Strait
Sockeye Salmon Management Plan

Appendix C. Summary of the North Shelikof Strait Sockeye Salmon Management Plan.

The North Shelikof Strait Sockeye Salmon Management Plan covers the time period from July 6 through July 25 and limits purse seine fishing opportunities in the S.W. Afognak Section and North Shelikof units in designated seaward zones through the use of sockeye harvest "caps". These "caps" are to protect Cook Inlet bound sockeye salmon which are migrating through management units located in Shelikof Strait from Dakavak Bay to Cape Douglas (approximately 70 nautical miles) in the Mainland District and from Raspberry Cape to Shuyak Island (approximately 50 nautical miles) in the Afognak District (Appendix C.1). This plan has been in effect since 1990. A detailed explanation of this plan is listed in 5 AAC 28.363.

By regulation the "seaward zone" of the Southwest Afognak Section will close to fishing if more than 50,000 sockeye are harvested between July 6 through July 25. Also by regulation the "seaward zones" of the Dakavak Bay, Outer Kukak Bay, Hallo Bay, Big River, Shuyak Island and Northwest Afognak Sections will close to fishing if more than 15,000 sockeye salmon are harvested between July 6 through July 25.

Permit holders who intend to fish in management units covered by this plan are advised that "in period" closures of the "seaward zones" may occur. In order to provide for an orderly in period closure, permit holders are notified of specific times when to listen for potential closure announcements. In 1990 those times were at 8:00 A.M. and 6:00 P.M. daily. Beginning in 1991 in order to provide for more timely "zone" closures initial announcement times were changed to 8:00 A.M., 10:00 A.M., 2:00 P.M., or 6:00 P.M. daily.

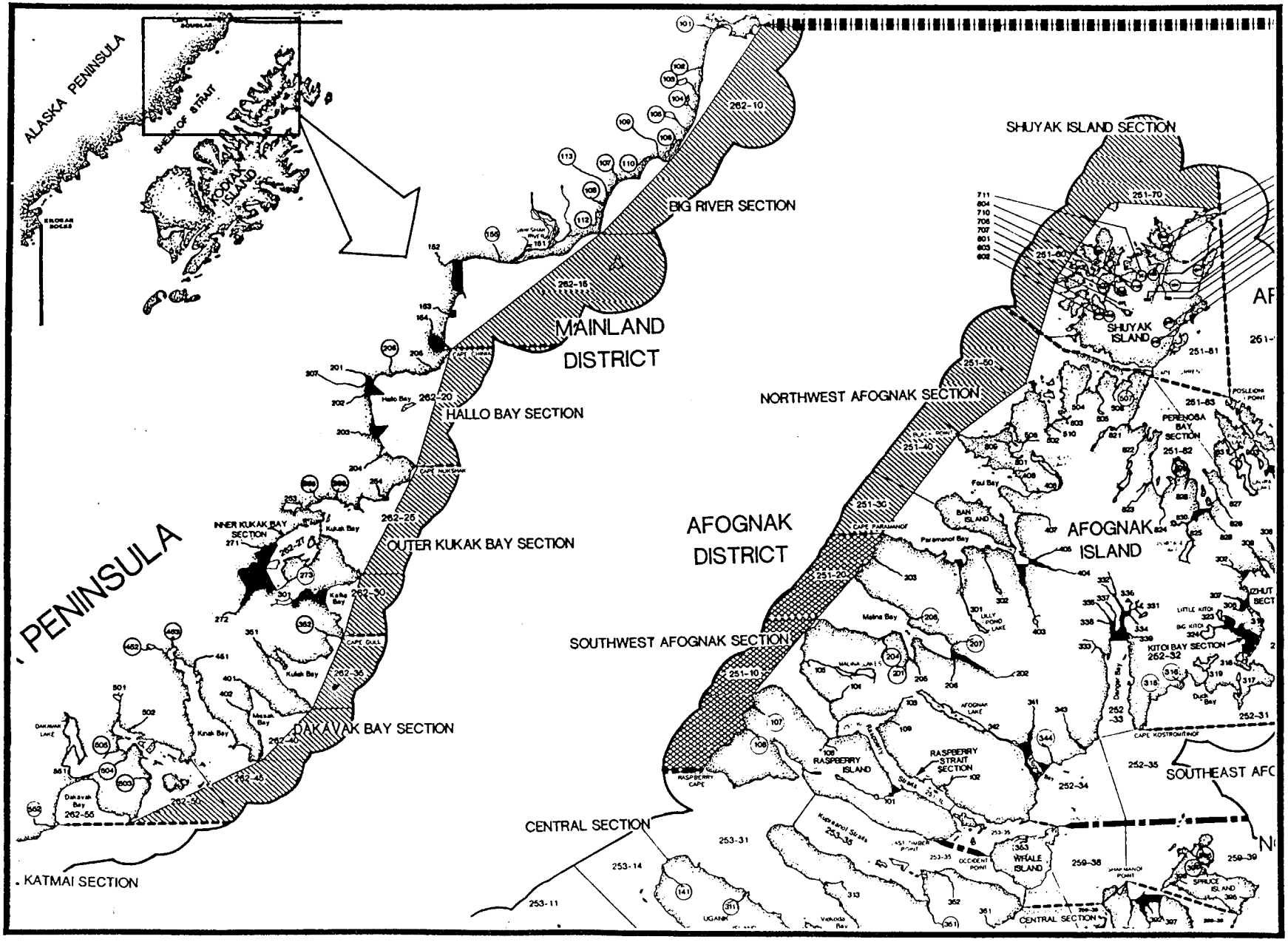
In the Southwest Afognak Section, closures of the "seaward zone" did not occur in 1990 or 1991 (Appendix C.2). In 1992, the "seaward zone" was closed "in period" at 1:00 P.M. on July 15. At the time of the closure inseason harvest estimates ranged from 44,000 to 54,000 sockeye harvested since July 6. Postseason fish tickets totals through July 15 indicated 48,200 sockeye salmon were harvested. Harvest totals for the S.W. Afognak Section for the time period July 6 through July 25 are 304 chinook, 50,576 sockeye, 605 coho, 30,018 pink and 6,826 chum salmon with 84 vessels participating. Appendix C.3 lists historical harvest by species by year in the Southwest Afognak Section.

In the North Shelikof units, seaward zone closures occurred in 1990 at 9:00 P.M. on July 15 and in 1992 at 1:00 P.M. on July 8 (Appendix C.2). The seaward zones were not closed in 1991 since inseason harvest estimates indicated the 15,000 fish cap had not been achieved (postseason fish tickets totaled 18,000 sockeye harvested July 6 through July 25). In 1992 an estimated 18,000 sockeye had been harvested at the time the seaward zone closed. Postseason fish ticket tallies indicated an actual harvest of 13,460 sockeye through July 8. The 1992 harvest totals for the North Shelikof units for the time period July 6 through July 25 are 945 chinook, 128,109 sockeye, 3,409 coho, 23,883 pink and 11,675 chum salmon with 77 vessels participating.

Appendices C.4 and C.5 list historical harvest by species by year in the North Shelikof units located on the Alaska Peninsula and the Northwest Afognak and Shuyak Sections.

Indexed escapement goals for spawning streams located in management units covered under this plan are listed in Appendix C.6.

Appendix C.1. Map depicting management units covered by the North Shelikof Strait Sockeye Salmon Management Plan.



Appendix C.2. Summary table by year by "Cap Area" listing fishing time, zone closures, effort and harvest by species, 1990-1992.

North Shelikof Units (15,000 Sockeye Harvest Cap) a/

YEAR	Total Number of Days Open to Fishing / Number of Days Seaward Zone Closed		Date and Time of Zone Closure	Estimated Sockeye Harvest at Time of Zone Closure	Number of Vessels	Total Harvest By Species July 6 through July 25					Upper Cook Inlet Sockeye Harvest
	MAINLAND	N. AFOGNAK				CHINOOK	SOCKEYE	COHO	PINK	CHUM	
1990	7.1 / 2.4	9.1 / 4.4	7/15 9 PM	36,800	69	140	57,700	3,900	18,600	19,400	3.6 MILLION
1991	7.1 / 0	13.1 / 0	—	—	42	2,500	18,800	2,700	44,800	3,800	2.2 MILLION
1992	7.1 / 5.1	9.1 / 7.1	7/8 1 PM	13,500	77	900	128,100	3,000	23,900	11,700	8.9 MILLION

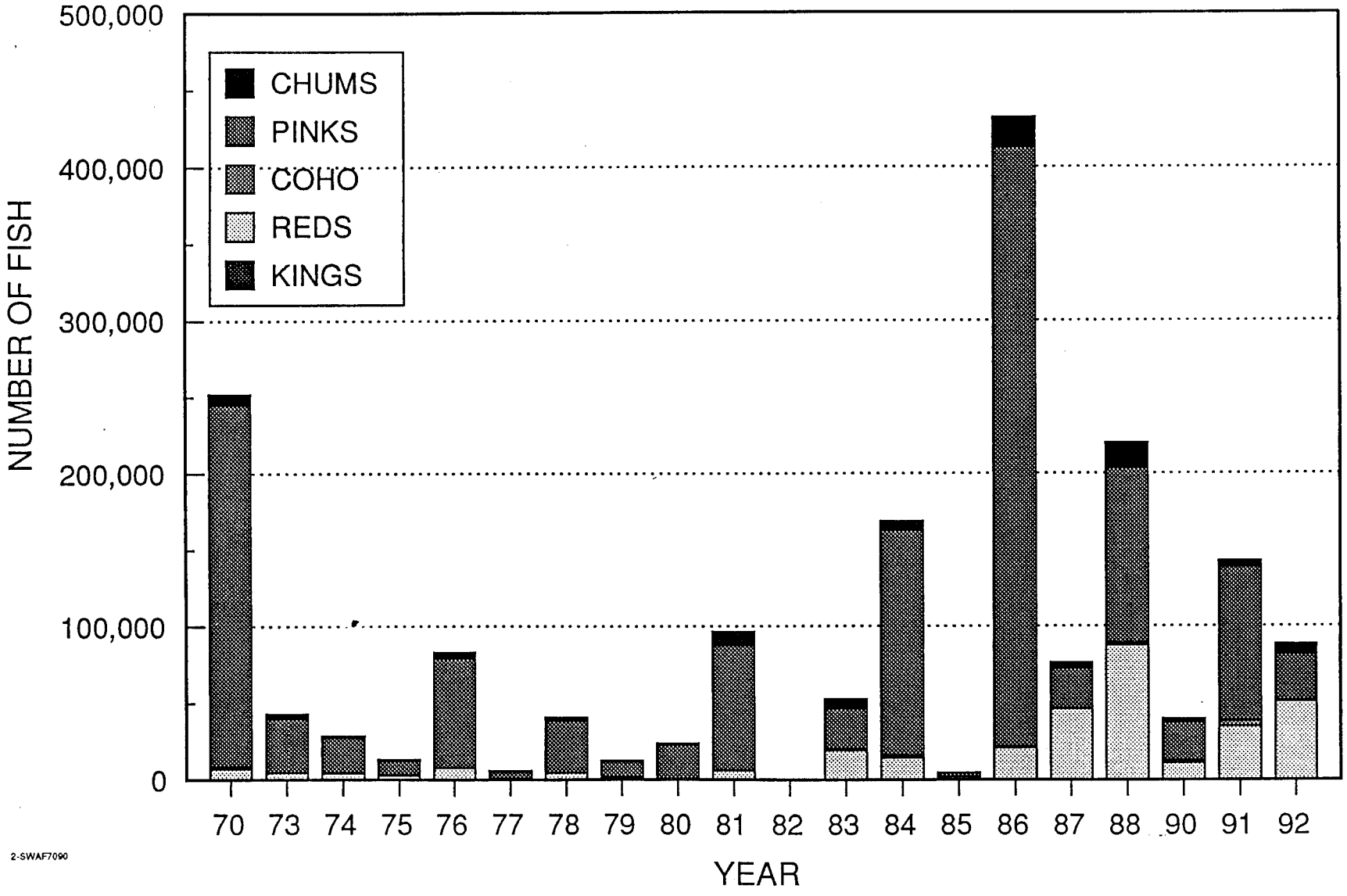
a/ In 1988, from 7/6 - 7/25, with 6.9 days open to fishing 392,000 sockeye were harvested in the " North Shelikof Units". In Upper Cook Inlet 6,800,000 sockeye were harvested.

Southwest Afognak Section (50,000 Sockeye Harvest Cap) b/

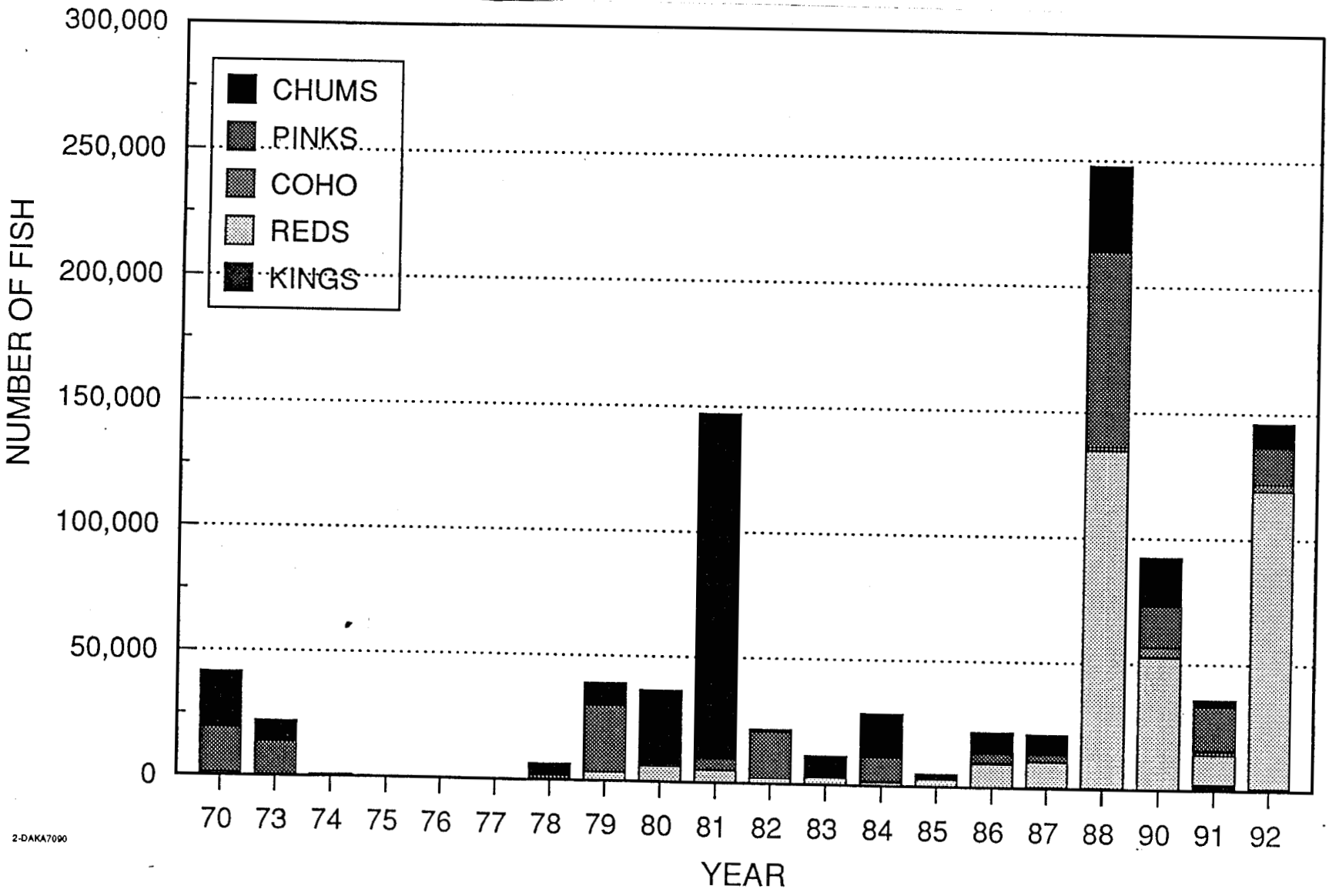
YEAR	Total Number of Days Open to Fishing / Number of Days Seaward Zone Closed	Date and Time of Zone Closure	Estimated Sockeye Harvest at Time of Zone Closure	Number of Vessels	Total Harvest By Species July 6 through July 25					Upper Cook Inlet Sockeye Harvest
					CHINOOK	SOCKEYE	COHO	PINK	CHUM	
1990	9.1 / 0	—	—	64	300	22,900	3,600	53,800	6,000	3.6 MILLION
1991	13.1 / 0	—	—	55	300	34,200	3,600	100,700	4,000	2.2 MILLION
1992	9.1 / 4.7	7/14 1 PM	48,200	84	300	50,600	600	30,000	6,800	8.9 MILLION

b/ In 1988, from 7/6 - 7/25, with 11.1 days open to fishing 86,000 sockeye were harvested in the "North Shelikof Units". In Upper Cook Inlet 6,800,000 sockeye were harvested.

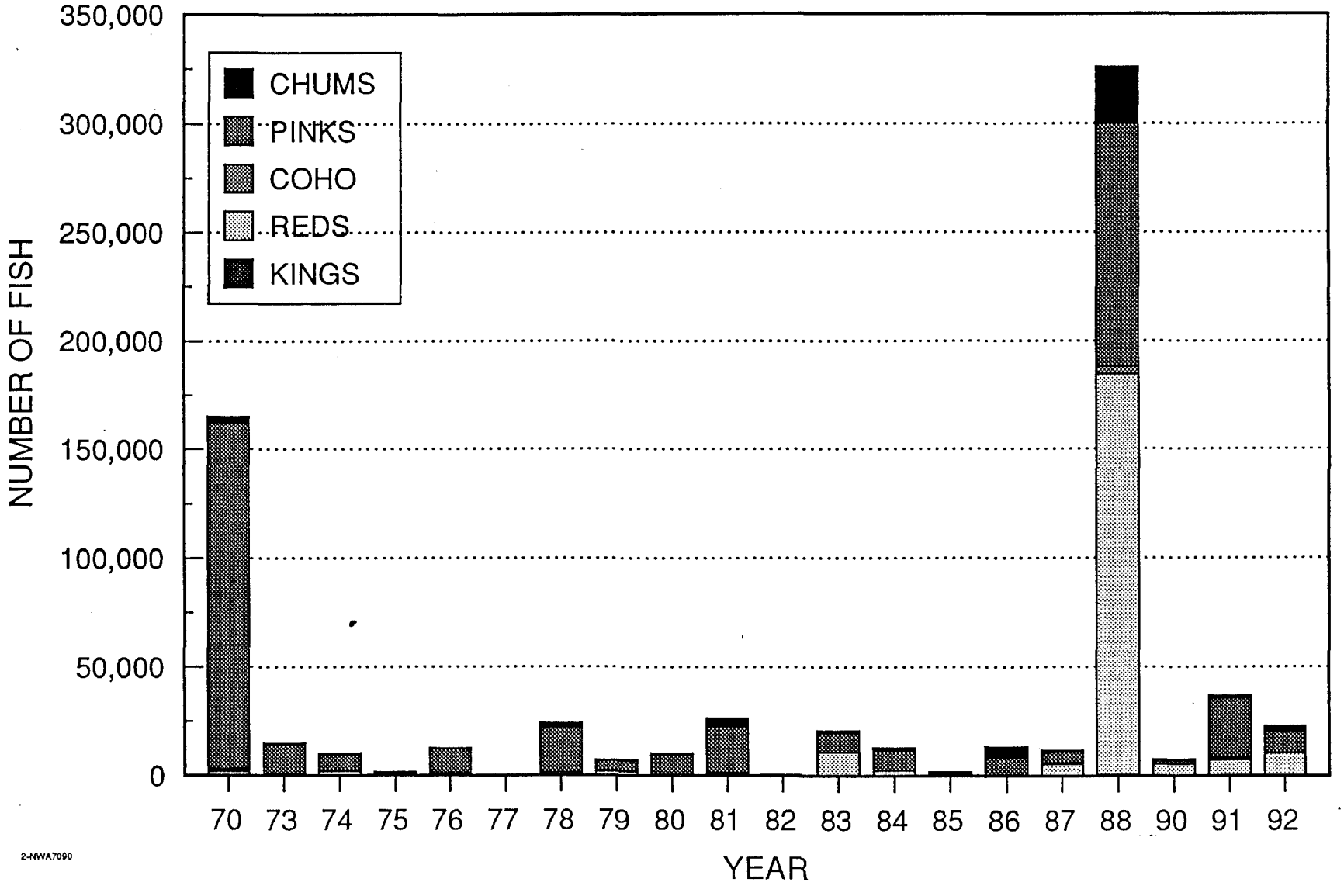
Appendix C.3. Commercial historical salmon harvest by species all gear combined in the Southwest Afognak Section (July 6-25), 1970-1992.



Appendix C.4. Commercial historical salmon harvest by species all gear combined in the Dakavak, Inner and Outer Kukak, Hallo Bay and Big River Sections combined (July 6-25), 1970-1992.



Appendix C.5. Commercial historical salmon harvest by species all gear combined in the Northwest Afognak and Shuyak Sections combined (July 6-25), 1970-1992.



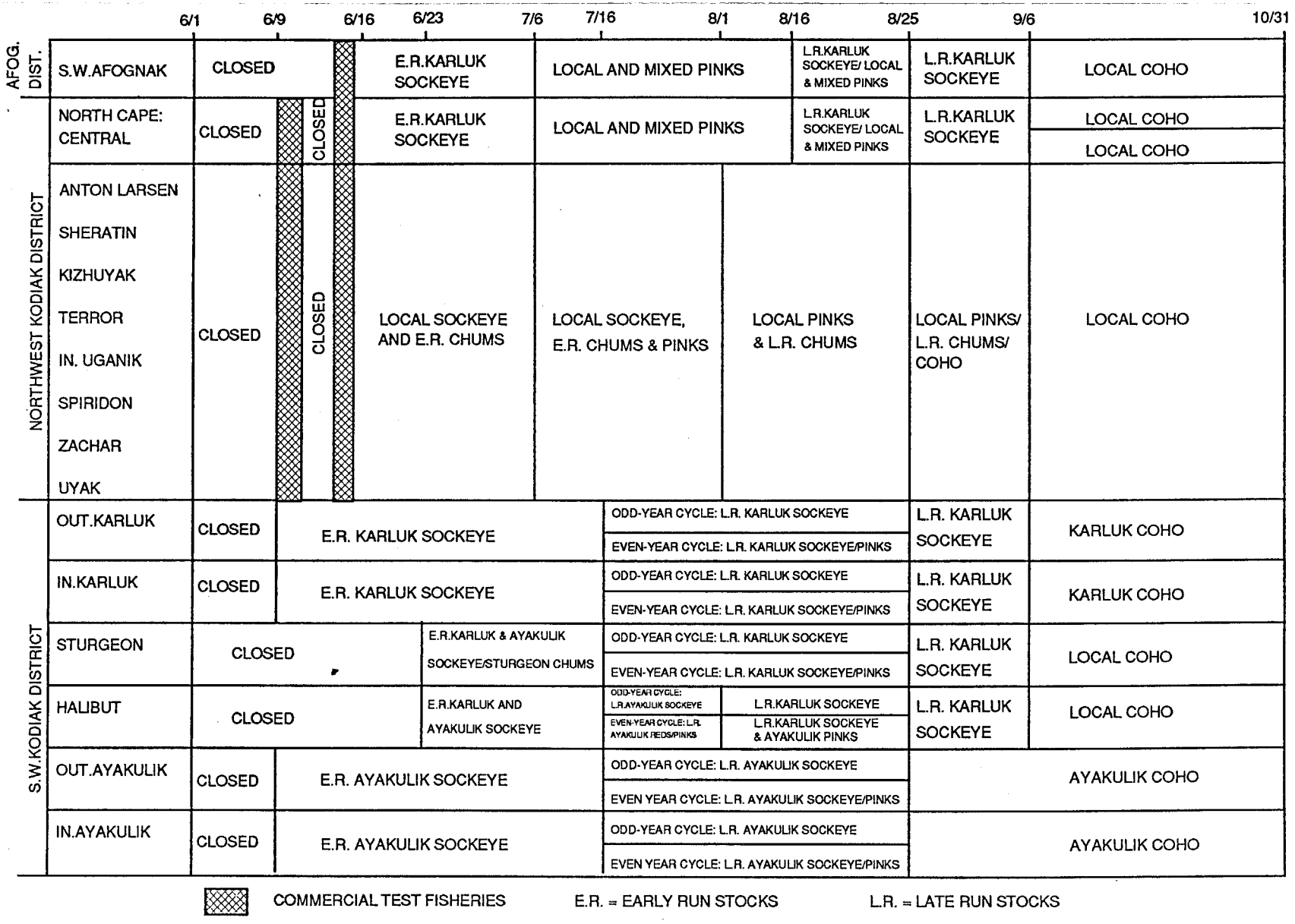
Appendix C.6. Indexed escapement goals by species for spawning systems located in management units included in the North Shelikof Strait Sockeye Salmon Management Plan.

Management Unit/Stream	Chinook	Sockeye	Coho	Pink	Chum
Big River Section					
Cape Douglas Swikshak			2-5,000	3-5,000	1-3,000
Swikshak		15-25,000	5-10,000		2-6,000
Big River			3-5,000	10-30,000	40-120,000
Village Beach				15-45,000	10-30,000
Chiniak Lagoon					8-24,000
Hallo Bay Section					
Ninigiak #201	-	-	-		5-15,000
#203	-	-	1,000	2-6,000	10-30,000
Outer Kukak Section					
Kaflia Creek	-	15-25,000	1,000	-	-
Cape Chiniak #205	-	-	-	5-15,000	
Inner Kukak Section					
Kukak River #271	-	-		3-9,000	60-180,000
#272	-	-			3-9,000
Dakavak Section					
Kuliak Creek	-	1-5,000		1,000	
Missak Creek	-	-		5-15,000	
Kinak River	-	-		20-60,000	2-6,000
Geographic Creek	-	-		4-12,000	
Dakavak River	-	-		25-75,000	10-30,000
Total Mainland	**0**	**31-55,000**	**12-22,000**	**93-273,000**	**151-453,000**
Shuyak Island Section					
Shangins	-	-	3,000	5-10,000	
Big Bay	-	-	3,000	-	
Carry Inlet	-	-	2,000	-	
Northwest Afognak Section					
Blue Fox	-		-	3-10,000	
Red Fox	-	1,000	-	5-15,000	
Paramanof 404	-		-	10-30,000	
Paramanof 403	-		-	5-25,000	
Thorsheim		5-10,000	2,000	5-10,000	1,000
Long Lagoon		1-5,000	1,500	5-10,000	
Total		**7-16,000**	**11,500**	**38-110,000**	**1,000**
Southwest Afognak Section					
Malina Creek 251-105	-	10-20,000	2,000	20-60,000	-
Malina Bay Creeks 251, 201, 208	-	-	-	5-25,000	-
Total		**10-20,000**	**2,000**	**25-85,000**	

APPENDIX D

Additional tables and graphs relating
to the Kodiak commercial salmon fishery.

Appendix D.1. Management chronology by management units for major westside salmon stocks, Westside Kodiak Management Plan, 1992.



Appendix D.2. Escapement summary for systems with fish weirs, Kodiak Management Area, 1992.

Weir Locations	Dates		Salmon Species Enumerated					Total
	Installed	Removed	Sockeye	Chinook	Pink	Coho	Chum	
1. Karluk	5/25	9/26	831,414	9,601	401,083	5,411	123	1,247,632
2. Red River	5/22	8/20	344,184	9,135	665,883	4,640	101	1,023,943
3. Dog Salmon	6/07	9/07	206,406	265	19,306	7,940	8,419	242,336
4. Fraser Lake[a]	6/11	8/12	185,825[a]	128[a]	0[a]	0[a]	510[a]	186,463[a]
5. Upper Station	6/02	9/21	218,143	0	4,771	7,179	3	230,096
6. Akalura	5/21	9/09	63,296	0	30,097	2,198	0	95,591
7. Saltery	6/11	6/28	2,120	0	0	0	0	2,120
8. Buskin	4/13 8/25	7/27 10/7	9,782	6	25,141	6,535	9	41,473
9. Litnik	5/23	9/15	77,260	0	28,945	16,415	0	122,620
10. Paul's Bay	6/07	6/30	8,033	0	0	0	0	8,033
11. Perenosa (Portage)	6/09	6/30	6,045	0	0	0	0	6,045
12. Uganik	5/12	10/9	75,894	5	117,515	9,967	11,771	215,152
13. Malina	6/03	8/13	7,610	0	60,587	44	0	68,241
14. Waterfall	7/16	9/06	81	1	43,000	3	1	43,086
15. Bear Creek (Shuyak)	8/09	9/13	0	0	4,895	925	0	5,820
16. Big Creek (Shuyak)	8/09	9/19	1	0	425	931	0	1,357
TOTALS			1,850,269	19,013	1,401,648	62,188	20,427	3,353,545

[a] Numbers not used in species totals as Fraser Lake salmon are initially counted through Dog Salmon weir.

Appendix D.3. Indexed peak salmon escapement by species by year, Kodiak Management Area, 1962-1992.

Year	Chinook	Sockeye	Coho	Pink	Chum
1962		922,500		4,600,000	297,900
1963		502,227		1,026,075	75,520
1964		600,346		3,360,000	261,429
1965		561,980		772,874	67,156
1966		652,578		2,100,000	143,700
1967		720,683		698,710	136,079
1968	703	645,612		2,800,000	121,000
1969	7,752	592,020		1,581,335	77,285
1970	3,900	573,603		3,392,577	123,150
1971	4,524	456,197		1,070,173	249,327
1972	3,049	605,491		1,053,391	335,115
1973	4,762	543,111		604,592	258,044
1974	1,622	995,925		2,041,099	86,383
1975	3,059	704,801		1,100,555	156,761
1976	8,411	1,075,226		3,105,320	312,914
1977	13,824	1,269,374	59,095	2,212,488	742,384
1978	14,677	1,000,353	37,479	5,006,273	482,956
1979	14,441	1,410,800	94,000	3,067,647	607,430
1980	5,850	1,831,748	28,000	6,492,822	830,070
1981	15,720	1,391,593	59,000	3,188,869	741,981
1982	10,773	1,603,692	86,000	5,370,049	1,023,923
1983	27,445	1,300,506	104,000	2,089,704	824,954
1984	14,429	1,467,780	123,000	4,512,124	682,936
1985	13,876	2,574,539	191,417	3,168,197	727,883
1986	11,046	2,001,279	170,000	4,068,615	655,817
1987	23,744	1,551,543	153,000	2,978,510	641,579
1988	35,000	1,650,000	105,000	4,400,000	720,000
1989[a]	26,131	3,022,886	166,622	14,642,587	1,432,609
1990[b]	25,700	1,880,000	92,000	5,000,000	400,000
1991[c]	27,306	2,513,659	259,850	4,317,610	934,336
1992[c]	19,013	1,968,058	289,592	3,515,624	530,128
Total	336,757	38,590,110	2,018,055	103,337,820	14,680,749
Average All Years	12,943	1,185,641	123,429	2,956,508	441,605
Recent Year Average (1987-1992)	26,153	1,913,052	179,888	4,042,349	645,209

-Continued-

Year	Chinook	Sockeye	Coho	Pink	Chum
Odd Year Average (1981-1991)				3,148,578	
Even Year Average (1982-1992)				4,477,735	

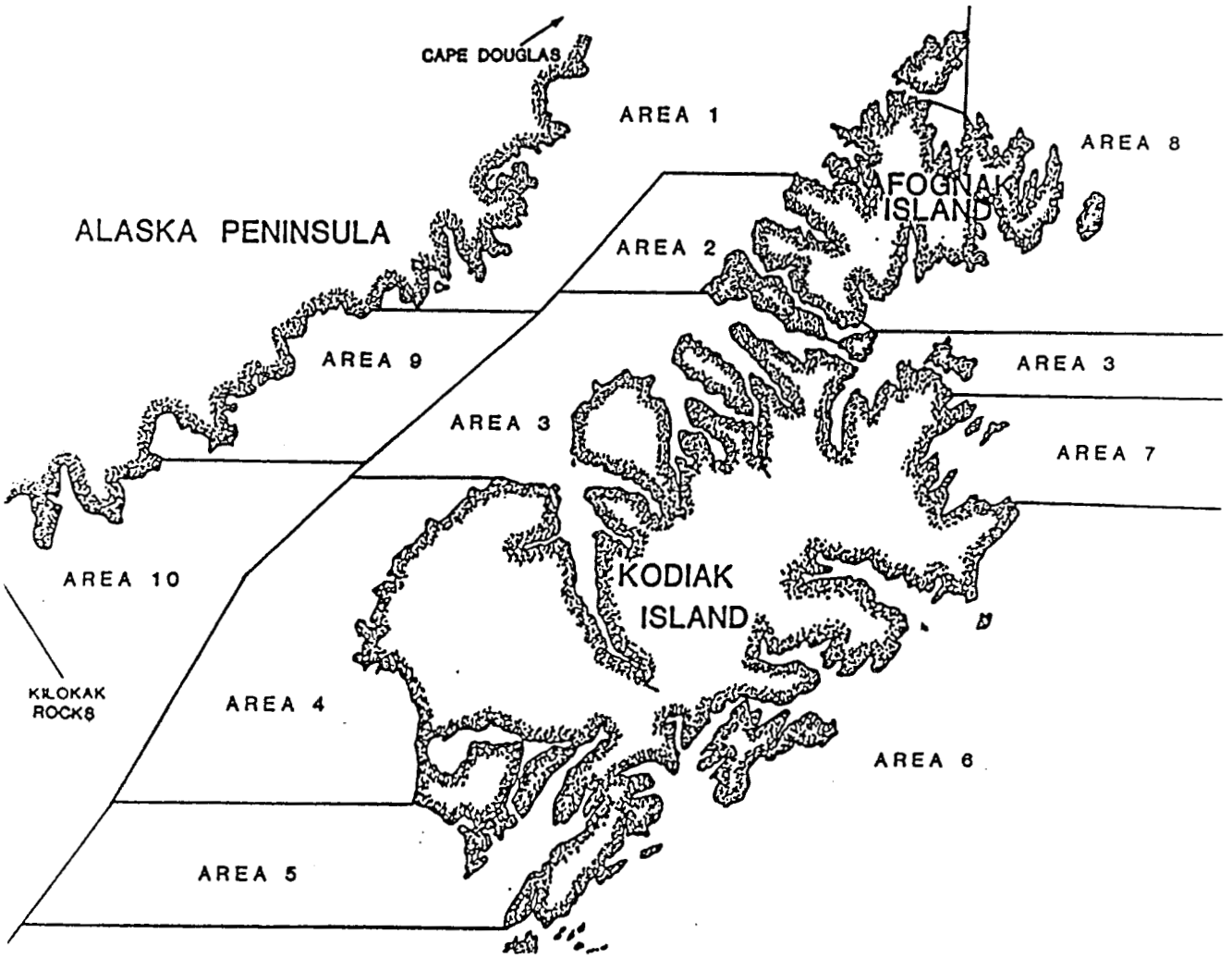
[a] Limited commercial fisheries were conducted due to contamination from the Exxon Valdez oil spill. 1989 escapement estimates not included in averages.

[b] Preliminary numbers, subject to revision.

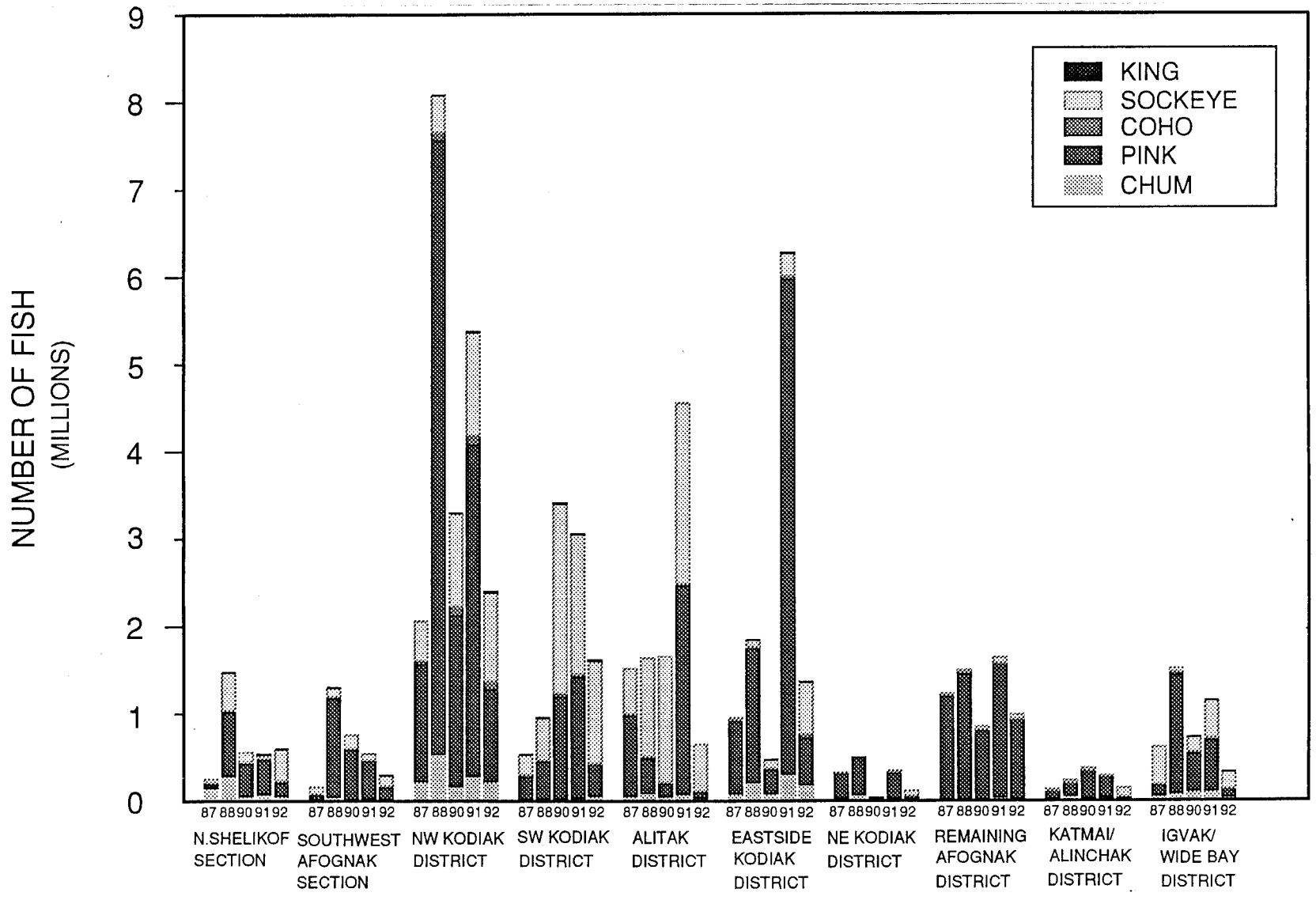
[c] Additional surveys were flown by USFWS during September and October, which may not necessarily suggest an increase in coho abundance in the Kodiak Management Area in 1991 or 1992

Appendix D.4. Map depicting 10 major harvest areas in the Kodiak Management Area.

AREA 1 - North Shelikof Sections
AREA 2 - SW Afognak Section
AREA 3 - NW Kodiak District
AREA 4 - SW Kodiak District
AREA 5 - Alitak Bay District
AREA 6 - Eastside Kodiak District
AREA 7 - NE Kodiak District
AREA 8 - Remaining Afognak Sections
AREA 9 - Katmai & Alinchak Sections
AREA 10- Igvak & Wide Bay Sections

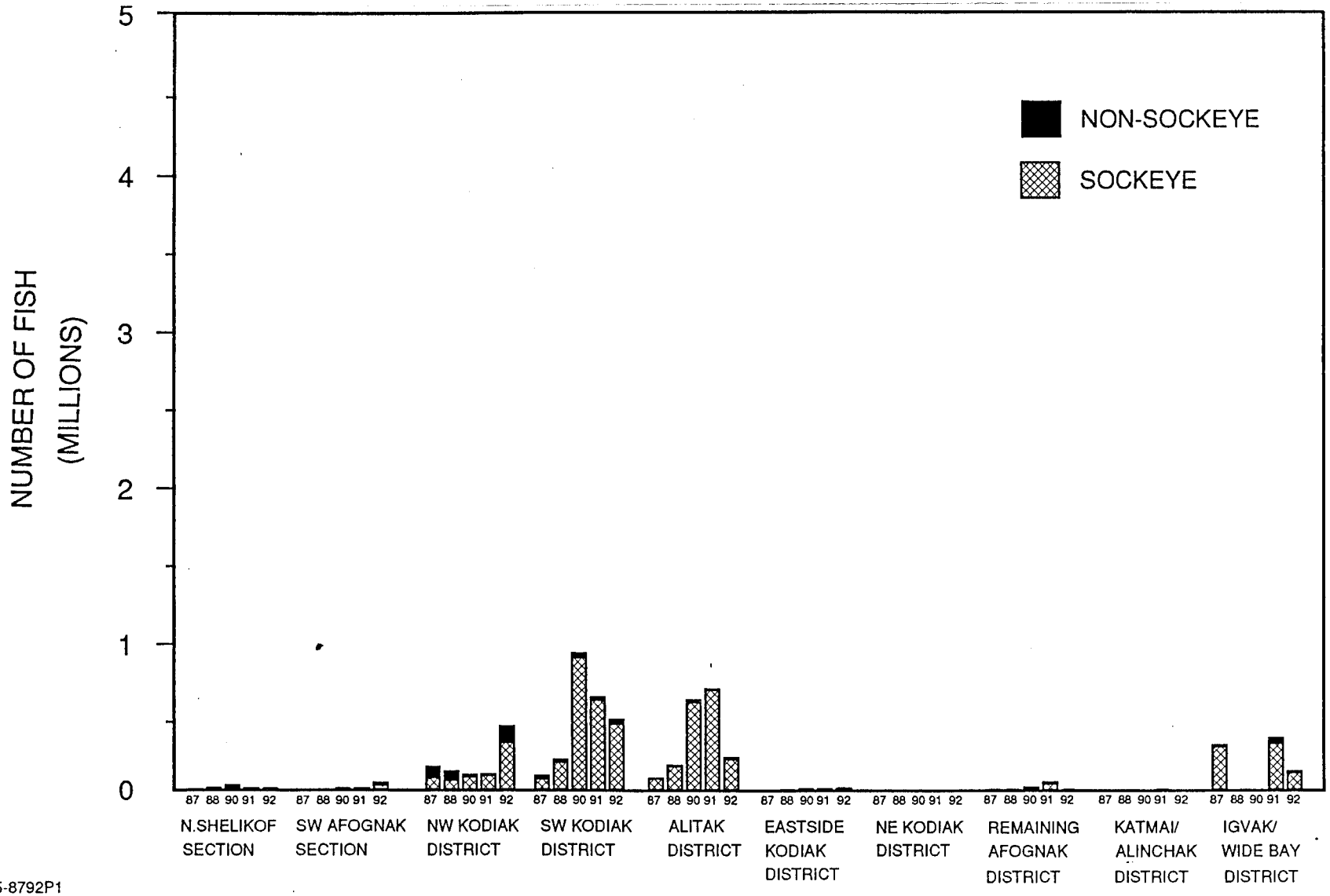


Appendix D.5. Sockeye salmon versus non-sockeye salmon harvests (June 1-October 31) by major harvest location, 1987-1992.



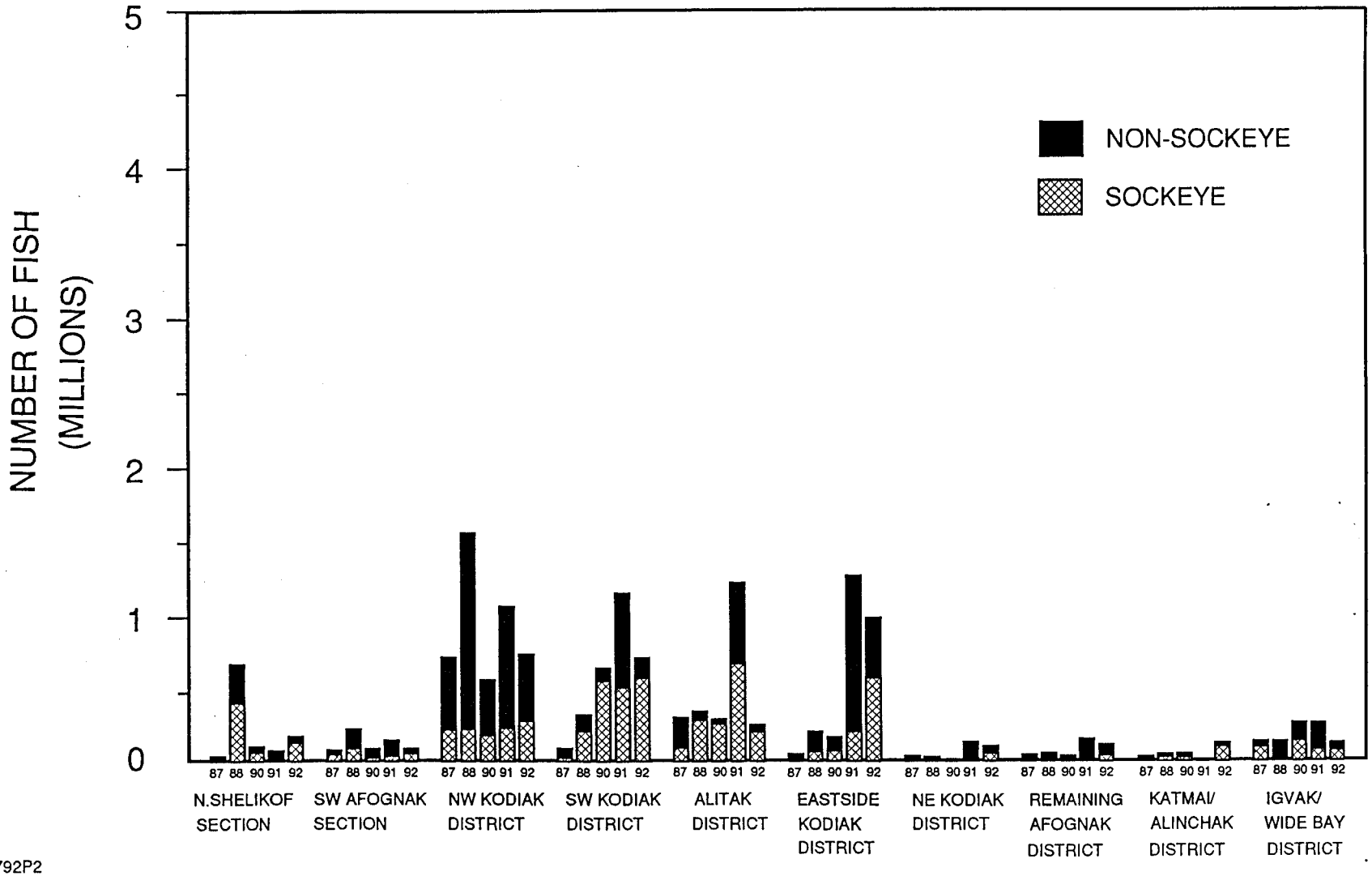
5-3YRAREA

Appendix D.6. Sockeye salmon versus non-sockeye salmon harvests (June 1-July 5) by major harvest location, 1987-1992.



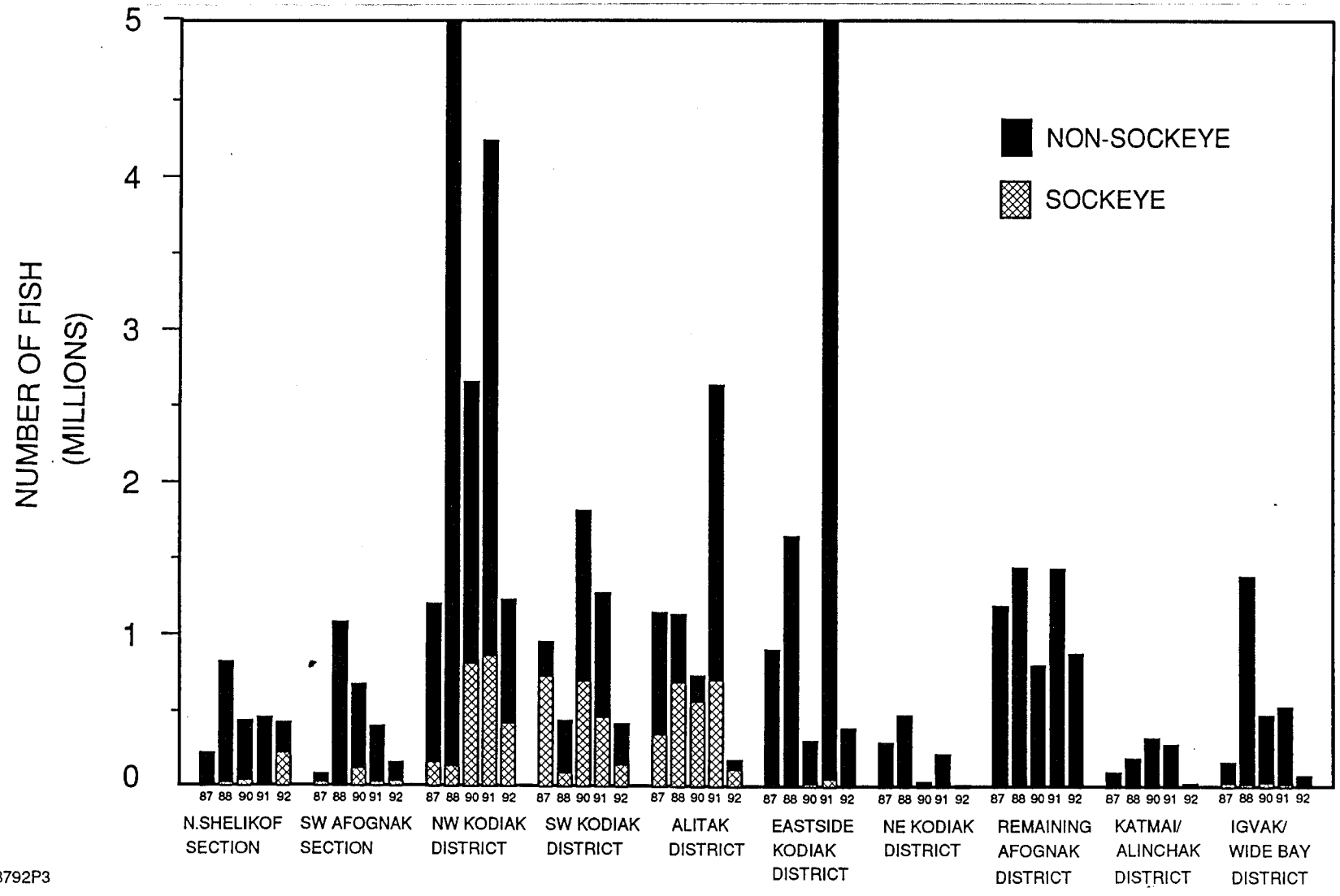
5-8792P1

Appendix D.7. Sockeye salmon versus non-sockeye salmon harvests (July 6-July 25) by major harvest location, 1987-1992.



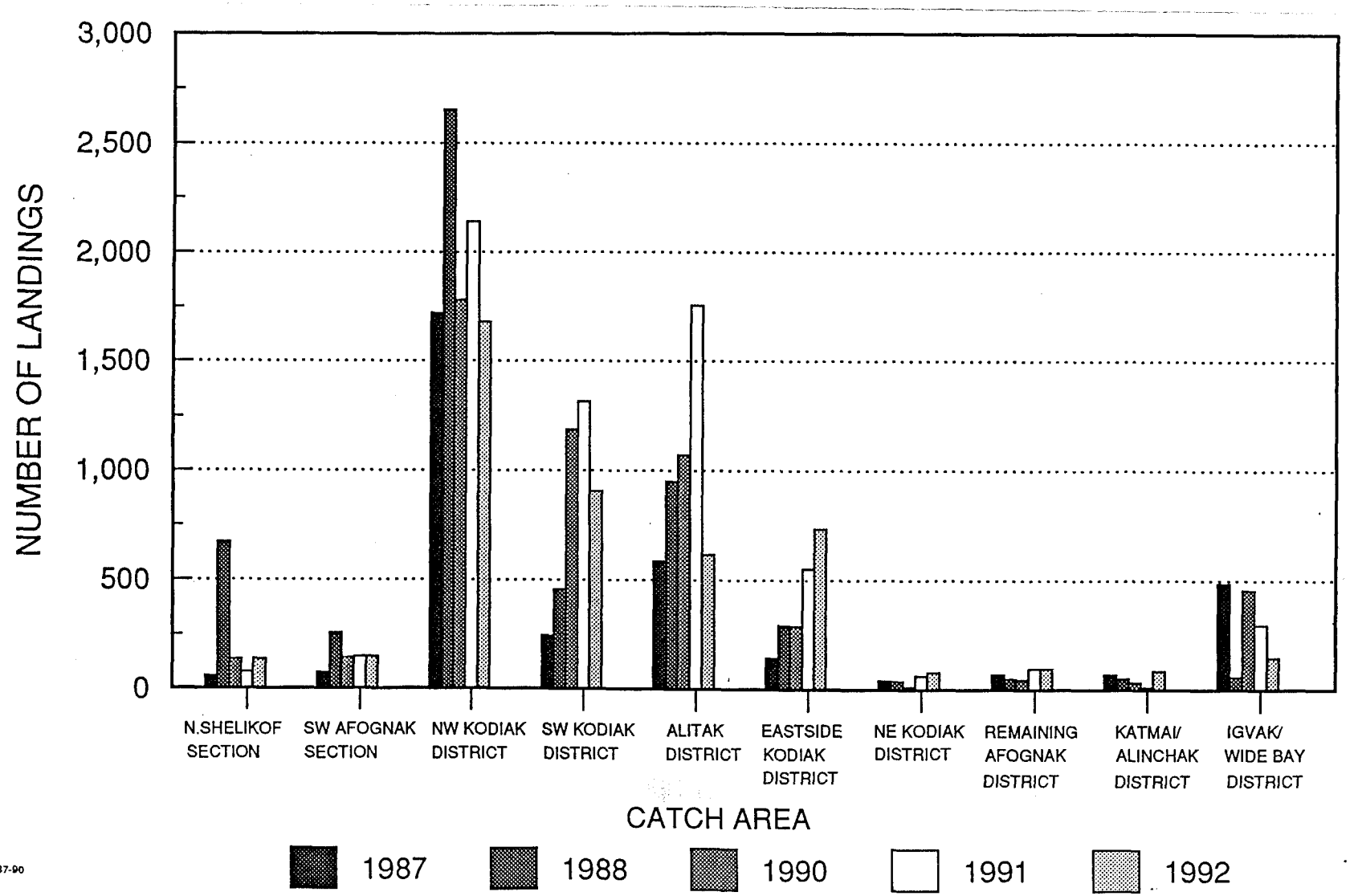
5-8792P2

Appendix D.8. Sockeye salmon versus non-sockeye salmon harvests (July 25-October 31) by major harvest location, 1987-1992.



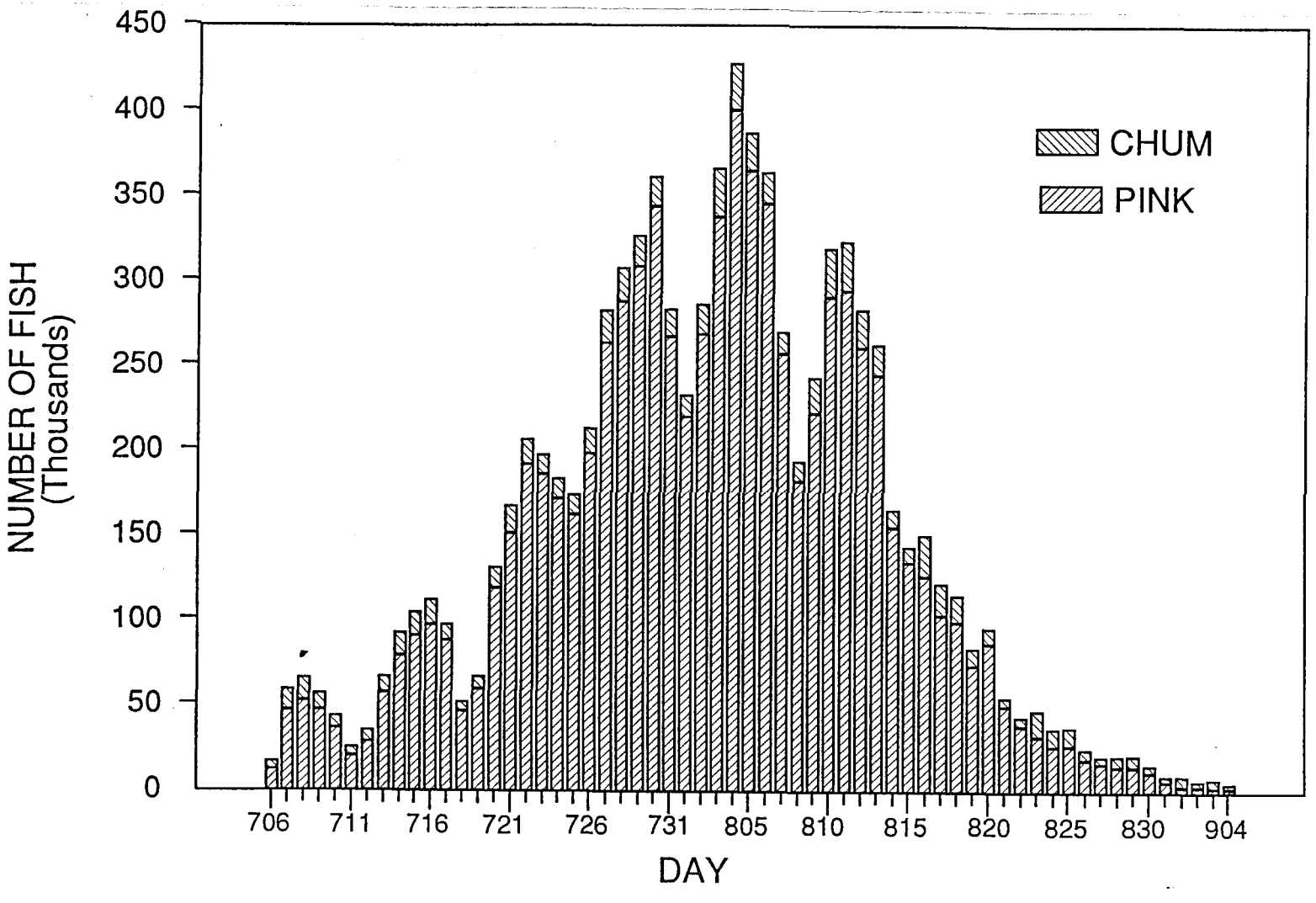
5-8792P3

Appendix D.9. Total number of landings (July 6-25) by major harvest location, 1987-1992.



8-LND87-90

Appendix D.10. Average pink and chum salmon harvest by day, 1970-1992.



J4-PNKCHM

Appendix D.11. Average pink and chum salmon harvest by day and accumulative percent harvest by day, 1970-1992.

DATE	PINKS NUMBER	CHUMS NUMBER	PINKS NUMBER	CHUMS NUMBER	PINKS NUMBER	CHUMS NUMBER
	AVG. CATCH BY DAY		AVG. ACCUM BY DAY		ACCUM PERCENT BY DAY	
6/01	0	1	0	1	0	0
6/02	0	3	0	4	0	0
6/03	45	30	45	34	0	0
6/04	0	0	45	34	0	0
6/05	0	0	45	34	0	0
6/06	4	0	49	34	0	0
6/07	33	5	82	39	0	0
6/08	83	32	165	71	0	0
6/09	85	136	249	207	0	0
6/10	118	360	367	567	0	0
6/11	29	75	396	642	0	0
6/12	58	103	454	745	0	0
6/13	166	98	620	843	0	0
6/14	330	240	950	1082	0	0
6/15	1095	883	2045	1965	0	0
6/16	817	719	2861	2684	0	0
6/17	809	355	3671	3039	0	0
6/18	1328	540	4999	3578	0	0
6/19	1316	688	6314	4267	0	1
6/20	3592	747	9906	5014	0	1
6/21	2507	892	12413	5905	0	1
6/22	1285	1098	13699	7004	0	1
6/23	6585	1279	20283	8282	0	1
6/24	2284	990	22567	9273	0	1
6/25	833	1607	23401	10880	0	1
6/26	1431	2204	24832	13084	0	2
6/27	3079	2482	27911	15567	0	2
6/28	1845	1696	29755	17262	0	2
6/29	2906	1601	32662	18863	0	2
6/30	3707	1857	36369	20720	0	3
7/01	3493	1809	39862	22529	0	3
7/02	4529	2058	44391	24587	1	3
7/03	3095	1609	47486	26196	1	3
7/04	3314	1330	50801	27526	1	3
7/05	4435	1712	55236	29237	1	4
7/06	12505	4897	67741	34134	1	4
7/07	47239	12443	114980	46577	1	6
7/08	52706	13368	167687	59945	2	7
7/09	47494	9897	215181	69842	3	8
7/10	36708	7037	251889	76879	3	9
7/11	20552	5425	272441	82304	3	10
7/12	29014	6758	301455	89061	4	11
7/13	57517	9299	358971	98360	4	12
7/14	79509	13652	438480	112012	5	14
7/15	91438	13793	529918	125805	6	15
7/16	97633	14690	627552	140495	8	17
7/17	88569	9388	716121	149882	9	18
7/18	47077	5658	763198	155540	9	19
7/19	60020	7209	823218	162749	10	20
7/20	119195	12212	942413	174961	11	21

-Continued-

Appendix D.11. (page 2 of 3)

DATE	PINKS NUMBER	CHUMS NUMBER	PINKS NUMBER	CHUMS NUMBER	PINKS NUMBER	CHUMS NUMBER
	AVG. CATCH BY DAY		AVG. ACCUM BY DAY		ACCUM PERCENT BY DAY	
7/21	151588	16593	1094001	191553	13	23
7/22	192308	14466	1286309	206019	16	25
7/23	186490	11763	1472799	217781	18	26
7/24	171979	12052	1644778	229833	20	28
7/25	162640	11972	1807418	241805	22	29
7/26	198627	14810	2006045	256616	24	31
7/27	263647	19039	2269692	275655	28	33
7/28	288152	19913	2557844	295568	31	36
7/29	308796	17998	2866640	313566	35	38
7/30	344051	17293	3210690	330859	39	40
7/31	267284	16210	3477974	347069	42	42
8/01	220349	12947	3698324	360015	45	44
8/02	268756	17847	3967080	377863	48	46
8/03	337813	28851	4304892	406713	52	49
8/04	400795	27178	4705688	433891	57	53
8/05	365096	22319	5070784	456210	62	55
8/06	345573	18488	5416357	474698	66	58
8/07	257207	12920	5673564	487617	69	59
8/08	182516	11393	5856079	499010	71	61
8/09	222406	20758	6078486	519768	74	63
8/10	290716	29060	6369201	548828	77	67
8/11	294659	29189	6663861	578017	81	70
8/12	260768	22701	6924628	600718	84	73
8/13	244292	17964	7168920	618682	87	75
8/14	155154	10368	7324074	629050	89	76
8/15	134368	9481	7458442	638530	91	78
8/16	126125	24268	7584567	662798	92	81
8/17	103359	18898	7687926	681696	94	83
8/18	99318	15841	7787244	697537	95	85
8/19	73575	10357	7860820	707894	96	86
8/20	86919	9084	7947739	716977	97	87
8/21	50188	5117	7997927	722095	97	88
8/22	38541	5343	8036467	727438	98	88
8/23	32478	15144	8068945	742582	98	90
8/24	26728	10698	8095674	753279	98	92
8/25	27262	10670	8122936	763949	99	93
8/26	19053	6242	8141989	770191	99	94
8/27	16591	4226	8158580	774417	99	94
8/28	14715	6245	8173295	780662	99	95
8/29	14426	6814	8187721	787476	100	96
8/30	11165	4685	8198886	792161	100	96
8/31	6148	3362	8205034	795522	100	97
9/01	3380	6144	8208414	801667	100	97
9/02	3410	3513	8211824	805179	100	98
9/03	2677	4978	8214500	810157	100	98
9/04	2491	2498	8216992	812655	100	99
9/05	1110	914	8218101	813570	100	99
9/06	926	2091	8219028	815661	100	99
9/07	700	2495	8219727	818155	100	99
9/08	536	1628	8220263	819784	100	100
9/09	271	746	8220535	820530	100	100
9/10	193	444	8220728	820974	100	100

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DATE	PINKS NUMBER	CHUMS NUMBER	PINKS NUMBER	CHUMS NUMBER	PINKS NUMBER	CHUMS NUMBER
	AVG. CATCH BY DAY		AVG. ACCUM BY DAY		ACCUM PERCENT BY DAY	
9/11	76	479	8220804	821452	100	100
9/12	31	341	8220835	821793	100	100
9/13	34	235	8220869	822029	100	100
9/14	375	84	8221244	822112	100	100
9/15	206	148	8221450	822261	100	100
9/16	15	63	8221465	822324	100	100
9/17	2	100	8221467	822424	100	100
9/18	0	36	8221467	822460	100	100
9/19	175	26	8221643	822486	100	100
9/20	0	25	8221643	822512	100	100
9/21	5	21	8221648	822533	100	100
9/22	0	89	8221648	822622	100	100
9/23	0	12	8221648	822634	100	100
9/24	0	19	8221648	822653	100	100
9/25	2	38	8221650	822691	100	100
9/26	0	19	8221650	822710	100	100
9/27	0	20	8221650	822730	100	100
9/28	59	12	8221709	822741	100	100
9/29	0	78	8221709	822819	100	100
9/30	19	37	8221728	822856	100	100
Total	8221728	822856				

Appendix D.12. Salmon harvest by species by day, Kodiak Management Area, 1992.

			CHINOOK SALMON		SOCKEYE SALMON		COHO SALMON		PINK SALMON		CHUM SALMON		TOTAL SALMON	
DATE	PERMITS	LNDGS	#	LBS	#	LBS	#	LBS	#	LBS	#	LBS	#	LBS
05/30	1	1	0	0	6	36	0	0	0	0	0	0	6	36
06/01	1	1	0	0	24	114	0	0	0	0	0	0	24	114
06/03	1	1	0	0	40	187	0	0	0	0	0	0	40	187
06/08	1	1	0	0	78	350	0	0	0	0	0	0	78	350
06/09	88	92	47	602	17692	84489	0	0	20	64	619	3888	18378	89043
06/10	151	165	507	7487	38840	186364	1	8	47	147	1474	10106	40869	204112
06/11	12	13	27	442	5164	26864	1	6	7	38	171	1098	5370	28448
06/12	2	2	6	156	330	1467	0	0	0	0	6	59	342	1682
06/13	1	1	0	0	83	403	0	0	0	0	0	0	83	403
06/15	116	121	558	10068	42171	194537	0	0	141	479	1207	8203	44077	213287
06/16	231	263	2165	33111	100831	464944	12	74	305	1038	4097	29437	107410	528604
06/17	172	181	1180	26386	65360	302382	1	5	58	197	1685	13134	68284	342104
06/18	189	198	417	7146	62088	292691	1	6	130	387	2514	21757	65150	321987
06/19	205	224	483	8831	70695	352795	2	13	811	2272	2193	18174	74184	382085
06/20	216	247	536	8949	85865	424839	4	29	1116	3056	3052	23464	90573	460337
06/21	133	138	287	5212	39875	193099	3	29	295	856	1477	11973	41937	211169
06/22	216	229	331	4286	52256	245176	8	60	1006	3416	3033	22848	56634	275786
06/23	291	329	569	6061	63984	307249	14	101	2110	7208	7380	56470	74057	377089
06/24	298	325	938	10006	64479	308215	7	66	1751	6485	6535	50871	73710	375643
06/25	232	248	347	3835	35703	172207	11	72	1467	5697	4043	30574	41571	212385
06/26	273	300	243	3297	65240	329577	6	40	2936	9984	5520	42211	73945	385109
06/27	168	185	231	3303	43610	228917	10	73	2367	7841	4432	32240	50650	272374
06/28	119	126	73	849	26434	136659	3	16	2472	8728	3575	25051	32557	171303
06/29	185	217	141	1580	34622	176062	14	89	4584	17505	5923	42217	45284	237453
06/30	162	189	187	2328	37984	187953	19	114	4937	19063	6184	43888	49311	253346
07/01	151	177	540	4720	38168	190084	32	214	8932	35012	8609	65075	56281	295105
07/02	170	199	217	2332	45666	222811	57	374	8478	33158	8369	61424	62787	320099
07/03	199	237	267	2934	51356	254706	58	395	9686	37591	7958	59467	69325	355093
07/04	178	209	306	3602	44943	222809	87	591	11354	42595	8779	63783	65469	333380
07/05	214	238	194	2403	54415	276650	81	607	14802	55459	8909	65913	78401	401032
07/06	260	293	422	5443	82223	455601	272	1576	24477	98384	13821	103164	121215	664168
07/07	294	321	585	7598	129267	780809	849	5311	33256	128912	22953	161962	186910	1084592
07/08	298	342	259	3663	129154	779048	1473	9222	35025	132433	28016	202429	193927	1126795
07/09	155	167	277	3552	106187	651298	1152	7579	18913	73658	14868	104795	141397	840882
07/10	193	206	85	1215	104842	671839	168	1267	18115	66944	8469	66330	131679	807595
07/11	199	210	183	2320	129867	850853	183	1218	19447	74244	6648	52300	156328	980935
07/12	91	93	212	2025	54742	359181	293	2298	12290	46613	4677	35843	72214	445960

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Appendix D.12. (page 2 of 3)

			CHINOOK SALMON		SOCKEYE SALMON		COHO SALMON		PINK SALMON		CHUM SALMON		TOTAL SALMON	
DATE	PERMITS	LNDGS	#	LBS	#	LBS	#	LBS	#	LBS	#	LBS	#	LBS
07/13	245	259	235	2170	113907	730121	1671	11148	44102	172651	21034	140507	180949	1056597
07/14	309	359	428	6395	231755	1442880	7895	57141	87755	332953	38446	267108	366279	2106477
07/15	319	382	443	5843	206269	1338762	6838	47382	75582	287495	41399	285909	330531	1965391
07/16	341	399	367	4399	161338	1028098	8382	54359	68249	263698	52825	333988	291161	1684542
07/17	124	135	179	2193	64532	394629	3630	24532	22403	84279	19464	134636	110208	640269
07/18	4	4	15	107	1174	7440	54	356	571	2774	177	1307	1991	11984
07/19	3	3	11	67	284	1720	110	829	6712	25482	87	504	7204	28602
07/20	233	236	155	2467	37641	230425	1228	8698	42771	168688	7663	59489	89458	469767
07/21	328	376	668	9386	163231	1043379	4554	33375	107502	415241	22064	168054	298019	1669435
07/22	341	410	823	7477	177304	1127197	9955	68044	112545	429740	20439	150594	321066	1783052
07/23	353	404	526	6211	109570	659189	12527	86544	137252	511730	26773	200309	286648	1463983
07/24	21	21	53	592	9577	55624	3301	22466	14080	53644	2965	20502	29976	152828
07/25	1	1	1	14	236	1087	0	0	0	0	20	262	257	1363
07/26	1	1	0	0	28	164	33	230	3582	13685	24	173	3667	14252
07/27	268	275	92	1297	70780	411415	5262	35131	92569	346086	9708	71874	178411	865803
07/28	347	410	283	4902	147194	909090	11129	73640	144762	556498	26292	189538	329660	1733668
07/29	332	376	663	11253	92487	560778	10043	70084	155586	591954	23699	179447	282478	1413516
07/30	336	390	890	13581	52137	288818	7698	57200	180249	688892	16914	125619	257888	1174110
07/31	109	113	99	1756	15067	82515	1773	12638	81479	303533	2679	18424	101097	418866
08/01	92	96	41	492	9895	49608	559	4208	87481	323074	207	1406	98183	378788
08/02	81	82	17	319	9287	49980	700	5096	91713	328727	671	4091	102388	388213
08/03	192	202	360	5271	10690	57748	3323	25053	128074	473401	11594	90888	154041	652361
08/04	257	304	707	10336	19061	107328	8245	60532	263327	977158	33659	266214	324999	1421568
08/05	278	312	869	13061	19873	109601	9933	71514	256751	932780	31283	227574	318709	1354530
08/06	62	64	93	1197	2503	14158	1667	12202	113987	407390	4351	32680	122601	467627
08/07	38	39	12	314	136	714	454	3390	81385	287605	223	1604	82210	293627
08/08	27	27	5	133	156	740	300	2130	48424	172476	158	858	49043	176337
08/09	24	24	3	81	140	665	319	2399	81064	284800	37	226	81563	288171
08/10	184	187	270	3744	8347	43475	3350	27458	106110	402840	6485	48305	124562	525822
08/11	258	291	595	9193	15461	82458	8263	69060	165258	635051	12038	89252	201615	885014
08/12	263	289	695	10228	14875	78572	9326	75799	134215	498610	10417	79663	169528	742872
08/13	21	21	46	918	1943	10268	1342	10819	20560	70734	1106	7559	24997	100298
08/20	34	52	0	0	9263	47882	69	480	587	2458	44	182	9963	51002
08/22	26	26	5	92	5075	26418	995	10028	663	2679	350	3087	7088	42304
08/23	60	66	23	447	9782	50649	4144	40875	2459	9075	1009	8330	17417	109376
08/24	59	61	18	430	6410	34206	2363	23780	1320	4769	692	6122	10803	69307
08/25	167	185	89	1097	45759	238853	5548	51507	12802	53106	1747	12738	65945	357301

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Appendix D.12. (page 3 of 3)

			CHINOOK SALMON		SOCKEYE SALMON		COHO SALMON		PINK SALMON		CHUM SALMON		TOTAL SALMON	
DATE	PERMITS	LNDGS	#	LBS	#	LBS	#	LBS	#	LBS	#	LBS	#	LBS
08/26	228	250	227	3216	60442	306958	14402	132475	27592	108879	2434	17019	105097	568547
08/27	245	267	159	2133	36683	186497	20754	177040	19232	72516	6594	46515	83422	484701
08/28	194	220	183	2444	27152	137911	7233	67572	8857	34360	1423	10242	44848	252529
08/29	175	189	61	910	17941	90145	6640	64684	7254	27023	831	5876	32727	188638
08/30	173	186	74	1156	20678	104703	5256	50488	7329	27595	951	6589	34288	190531
08/31	145	154	68	854	25585	130208	6221	59457	5186	20988	921	6472	37981	217979
09/01	155	181	32	430	24292	127673	5135	47503	4901	19321	1449	10403	35809	205330
09/02	131	136	58	1052	19716	100017	10457	100194	3511	13759	1887	14557	35629	229579
09/03	143	152	91	1472	19609	100766	8732	83995	3152	12190	1393	10626	32977	209049
09/04	145	158	88	1464	18523	92448	6776	64980	3303	12961	1765	12546	30455	184399
09/05	116	120	43	813	12945	66064	3489	33504	1726	6648	442	3368	18645	110397
09/06	105	119	45	606	14576	76978	2270	21780	600	2154	614	4544	18105	106062
09/07	106	115	111	1489	10088	51953	1983	18909	264	885	338	2282	12784	75518
09/08	104	108	153	1834	10683	52916	2054	20117	44	175	448	3244	13382	78286
09/09	92	97	71	1156	11775	60930	2758	26594	2176	8342	294	2012	17074	99034
09/10	83	85	11	163	8530	43511	1865	17783	20	80	227	1652	10653	63189
09/11	64	65	21	399	7842	40066	1089	10495	0	0	108	731	9060	51691
09/12	79	82	35	532	10870	54090	1797	17513	17	58	134	956	12853	73149
09/13	64	65	22	286	9135	45344	1047	9853	0	0	514	3696	10718	59179
09/14	59	62	39	586	7558	38034	3715	34476	40	122	324	2192	11676	75410
09/15	51	54	14	292	8643	43281	1438	12897	17	85	196	1317	10308	57872
09/16	45	45	15	268	6696	32182	1062	8834	14	49	75	453	7862	41786
09/17	31	34	10	135	2486	12418	207	1955	0	0	21	144	2724	14652
09/18	27	27	31	415	2634	12851	279	2613	0	0	45	336	2989	16215
09/19	16	17	1	3	1709	8261	176	1579	0	0	22	166	1908	10009
09/20	15	15	20	200	1574	8130	986	9088	0	0	86	579	2666	17997
09/21	3	3	17	304	331	1624	20	169	0	0	0	0	368	2097
09/22	2	2	0	0	125	639	15	147	0	0	9	48	149	834
09/23	1	1	0	0	0	0	91	785	0	0	0	0	91	785
09/24	5	5	0	0	632	3168	194	1823	0	0	0	0	826	4991
09/25	2	2	0	0	801	4569	61	520	0	0	0	0	862	5089
10/07	1	1	0	0	0	0	77	935	0	0	0	0	77	935
TOTAL	527	16388	24299	347817	4167705	23684254	280084	2292337	3310501	12403410	679484	4927736	8462073	43655554
AVG.WT.				14.31		5.68		8.18		3.75		7.25		